

**LOCAL AGENCIES
COMMENTS AND RESPONSES**

LOCAL AGENCIES

LA1 – Pima County, County Administrator's Office



COUNTY ADMINISTRATOR'S OFFICE

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C.H. HUCKELBERRY
County Administrator

December 13, 2013

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Re: **Pima County Review and Comments – Sierrita Pipeline Project Draft Environmental Impact Statement (DEIS); Docket Nos. CP13-73-000 and CP13-74-000**

Dear Ms. Bose:

Pima County has expended a great deal of effort to fully participate with the Federal Energy Regulatory Commission (FERC) in its public process and has painstakingly provided substantive critique of the proposed Sierrita Pipeline Project (Project) as it has evolved from pre- to post-filing. County staff's expertise and our first-hand experience with pipelines similar to the Project enabled us to provide a thorough identification of those impacts this community will experience as a result of the construction and operation of the Project. We also provided reasonable alternatives and recommendations that would have reduced the Project's immediate and long-term impacts on public safety, public infrastructure, border security, land and ranch management, and the significant public and private investments in the health of the Altar Valley ecosystem. Unfortunately, the DEIS does not take a hard look at these impacts or describe reasonable mitigation measures in sufficient detail.

LA1-1

LA1-2

LA1-3

LA1-4

The DEIS also fails to adequately consider alternatives for the Project that do not include the Sasabe interconnect location or to consider a compensatory land exchange for siting the pipeline along the East Route Alternative along State Route 286. Because of FERC's narrow definition of the Project boundary (pipeline right of way) and their stated inability to mandate that Sierrita engage in activities beyond the limits of the Project boundary, the DEIS is significantly and fatally flawed. Without certificate conditions to regulate Sierrita's activities outside of the right of way, the local community will bear the brunt of dealing with the real-life consequences of pipeline construction, operation, and maintenance. Should the pipeline be approved as proposed, the most significant impacts and costs to

- LA1-1 See responses to comments PM2-22 and NAT4-3.
- LA1-2 See responses to comments PM1-6, PM1-10, PM1-11, and PM1-24.
- LA1-3 See response to comment PM1-24.
- LA1-4 The EIS discloses impacts on public safety, the environment, and special land uses throughout the analysis.

Pima County's analysis of estimated tax revenues and costs to the county outlined in appendix A of its letter, specifically items 7, 8, 10, and 11, is noted. Sections 4.10.3 and 4.10.6 of the EIS address socioeconomic impacts on public services and lands where public funds have been invested, and have been updated to summarize the information provided by Pima County. Sierrita would compensate Pima County for Project-related impacts on vegetation in the affected area as required by the PCRRH protection ordinance and specific lease conditions.

While Sierrita continues to consult with Pima County regarding applicable permits and easement acquisition, it is possible that Pima County could assign a value to the land that reflects the "cost" of placing a pipeline easement on land that is owned by the county. This might include costs associated with mitigating for the impacts described by Pima County. These negotiations are between the Pima County and Sierrita.

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(cont'd)

Pima County and the residents of Altar Valley can be expected in the areas of public safety, environmental damage, and ongoing degradation of the conservation values and investments made in the Altar Valley. The DEIS fails to identify, analyze, or disclose the extent of these impacts and costs to the local community or to recommend any meaningful mitigation for these impacts. The attached memorandum to the Pima County Board of Supervisors (Attachment A), provides a summary of the project’s foreseeable impacts, an analysis of estimated tax revenues to Pima County, and recommended mitigation measures. Pima County asks that FERC adequately consider and analyze the full range of impacts and costs to the community that will result from the proposed undertaking.

In addition, the following comments, along with those from individual County departments contained in Attachment B to this letter, represent Pima County’s review and comment on the DEIS.

Alternatives Analysis

LA1-5

FERC defines the purpose of the Project so narrowly in the DEIS that it forecloses the consideration of other reasonable alternatives. The overarching purpose of the Project is to “provide a reliable means of natural gas transportation service from the United States to Mexico.” If FERC holds this as the only purpose of the Project, the DEIS should consider a reasonable range of alternatives that include delivery points along the international border besides the one in Sasabe. However, FERC limits the purpose of the Project by assuming the only way to deliver natural gas to customers in Mexico is through the unbuilt, interconnect point in Sasabe. As a result, FERC constrains the possible range of alternatives (besides the no action alternative) to routes that pass through Sasabe. Under this analysis, the pipeline route proposed by Sierrita becomes a foregone conclusion. FERC may put significant weight on Sierrita’s goals for the Project, but it cannot allow Sierrita’s contractual obligations to define the entire purpose of the Project. Sierrita’s corporate goal should not predetermine the choice of route. Instead, the DEIS should have a purpose broad enough to consider a range of alternatives that includes delivery points along the international border other than the one in Sasabe.

LA1-5

See response to comment PM1-4.

LA1-6

In addition to the inadequate consideration of alternative delivery points along the international border other than Sasabe, the East Route Alternative siting the pipeline entirely along State Route 286 is not adequately analyzed. FERC’s analysis of the East Route Alternative along State Route 286 does not address how a meaningful compensatory land exchange with the Buenos Aires National Wildlife Refuge could offset any impacts of the pipeline right of way and actually provide long-term benefits to the environment and the mission of the Refuge. Furthermore, there is no indication that Sierrita or FERC ever made any good faith efforts to explore this possibility. Expert

LA1-6

See responses to comments PM1-10 and PM1-11.

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LA1-6
 (cont'd) | opinions from the US Fish and Wildlife Service and the FERC readily acknowledges in the DEIS Chapter 3.0 that the East Route Alternative would have far fewer environmental impacts than the proposed route and that *"installing the pipeline adjacent to the existing road and utility line would largely avoid impacts associated with fragmenting one of the largest tracts of contiguous semi-desert grassland in southern Arizona."* Given this assessment, it is therefore incumbent on FERC to ensure that the DEIS Alternatives Analysis explores every possible means to avoid, minimize, and mitigate impacts from this pipeline. This analysis should include the consideration of a compensatory land exchange for the East Route Alternative. Until this is adequately explored and analyzed, the DEIS Alternatives analysis is incomplete.

Public Safety and Public Infrastructure

LA1-7 | During pre-filing, we presented a reasonable case for greater safety design for the entire stretch of pipeline between MP 0 and MP 8. Our safety concerns stem from the pipeline's proximity to public sewer conveyance lines and future development that has Comprehensive Plan or rezoning approvals for community activity centers, residential master planned communities, and urban industrial uses as well as our not-so-distant history with Kinder Morgan pipeline ruptures. However, the DEIS does not acknowledge the presence of the existing public sewer conveyance line (C-79-B) that lies within the Snyder Hill Road public right of way where the pipeline will be co-located. In addition, the DEIS also fails to consider future development, urban densities, and existing infrastructure in the determination of pipeline classifications and wall thickness between MP 0 and MP 8. We recommend the pipeline have the maximum wall thickness. These omissions must be addressed.

The presence of the Avra Wastewater Treatment Facility is acknowledged to be approximately 672 feet north of the pipeline right of way at MP 2.3; there should be little debate that the uninterrupted operation of this type of public facility is crucial to public health and safety. However, this vital public facility appears to have been excluded from consideration in the designation of High Consequence Areas (HCA) for the Sierrita Pipeline. This should be corrected, as HCA designations translate into greater safety design.

LA1-8 | Attachment B to this letter contains a detailed response from the Pima County Sheriff's Department regarding the effect the pipeline will have on their ability to provide local law enforcement services. The message here is that the *post-construction* phases of the pipeline have the greatest impact on the ability to provide public services. If permitted, FERC will be authorizing the construction, operation and maintenance of this pipeline, which essentially means FERC is authorizing the *long-term presence* of the pipeline. However, FERC's assessment of impacts to this particular public service is heavily biased

LA1-7 | As discussed in section 4.13.1, under a *Memorandum of Understanding on Natural Gas Transportation Facilities* dated January 15, 1993, between the DOT and FERC, the DOT has the exclusive authority to promulgate federal safety standards used in the transportation of natural gas. Section 157.14(a)(9)(vi) of FERC's regulations require that an applicant certify that it would design, install, inspect, test, construct, operate, replace, and maintain the facility for which a Certificate is requested in accordance with federal safety standards and plans for maintenance and inspection, or certify that it has been granted a waiver of the requirements of the safety standards by the DOT in accordance with section 3(e) of the Natural Gas Pipeline Safety Act. FERC accepts this certification and does not impose additional safety standards other than DOT standards.

Regarding the potential for future development, urban densities, and existing infrastructure, as discussed in section 4.13.1, if a subsequent increase in population density adjacent to the right-of-way results in a change in class location for the pipeline, Sierrita would reduce the MAOP or replace the segment with pipe of sufficient grade and wall thickness, if required in order to comply with DOT requirements for the new class location.

As further discussed in section 4.13.1, the DOT has published rules under 49 CFR 192.903 that define HCAs. Based on DOT guidance, the current parameters of the Avra Wastewater Treatment Facility do not qualify it as an HCA.

LA1-8 | Section 4.10.3 has been updated to include information provided by the Pima County Sheriff's Department regarding providing law enforcement. The EIS examines operational impacts of the pipeline throughout each section of our analysis in section 4. Further, as stated in section 4.10.3, it cannot be determined whether the Project itself would cause an increase of or shift in illegal activities from what is already experienced throughout the Altar Valley as a result of undocumented immigrants or other unauthorized users.

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(cont'd) toward only those that occur during the construction phase. The DEIS analyses need to identify impacts associated with both construction and post-construction maintenance activities.

Open Space and Conservation Lands

LA1-9 The DEIS implies that all of the lands Pima County has acquired for purposes of conservation are leased from the Arizona State Land Department (ASLD) and expresses uncertainty about which lands are designated for conservation. This is both incorrect and misleading. Not all lands Pima County holds for conservation purposes are under lease from ASLD; some are owned in fee. Please consult with County staff to correctly identify which lands are leased, owned in fee and designated for conservation.

Vegetation Restoration

LA1-10 The DEIS documents that certain vegetation types impacted by pipeline construction typically achieve re-establishment in 75 years, assuming foot and vehicular traffic do not prolong the re-establishment. The acreage of these vegetation types totals approximately 950 acres. In the DEIS, FERC asserts that impacts to vegetation and wildlife resources will be minimal based on the successful implementation of Sierrita's *Maintenance Plan, Mitigation Procedures, Reclamation Plan* and the *Post-Construction Vegetation Monitoring Document* as amended to incorporate FERC recommendations. The DEIS and *Post-Construction Vegetation Monitoring Document* also state that monitoring and restoration actions as necessary will continue until the FERC and ASLD determine that restoration and revegetation goals have been met. Based on the stated purpose of transporting natural gas for a 25-year term, the life of the Project would appear to be 25 years. These factors create a likely outcome that the recovery of up to 950 acres will not be achieved within the 25-year lifespan of the project or the effective timeframe of FERC's certificate. The DEIS is deficient in the presentation and effects analyses of this very probable scenario.

Proposed Revenue to Pima County

LA1-11 In response to FERC's inquiry regarding whether the Arizona Transaction Privilege Tax (TPT) would apply to the project, Kinder Morgan indicated that \$12.4 million would be generated for the State of Arizona and/or Pima County. Please note that Pima County would only receive a small portion of the tax revenue through state-shared sales tax. The State would share a portion of the percentage of the tax revenue it receives from its overall TPT rate with all Arizona counties and incorporated cities and towns. It is estimated that Pima County's share would only be about \$120,000 based on the overall \$12.4 million of TPT tax.

LA1-9 Section 4.8.2.2 has been updated to note that, based on information provided by Sierrita, Pima County is identified as the landowner at MP 2.0 and between approximate MPs 2.2 and 3.3. For Pima County lands leased from the ASLD, regardless of use, the ASLD would ultimately negotiate the value of the land that Sierrita would obtain an easement from for its pipeline.

LA1-10 Although Sierrita is currently supported by a 25-year contract, based on information provided by Sierrita, it expects to provide transportation service well beyond the initial 25-year term, either through the extension of the initial contract with MGI or with new customers on the pipeline. Many pipelines throughout the country, including EPNG's system in Arizona, have been in operation for more than 75 years.

Also see response to comment SA9-27.

As stated in section 2.7, in the event that Sierrita would need to abandon its pipeline, Sierrita would be required to seek appropriate regulatory approvals at that time, including any authorizations that might be required from the FERC or other agencies. If the pipeline is abandoned, the pipe may be left in place or may be removed and the area reclaimed in accordance with provisions and requirements of the FERC Certificate authorizing abandonment and any other land-managing agency requirements.

LA1-11 Section 4.10.6 has been updated to summarize the information provided by Pima County.

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Pima County Regulatory Authority

LA1-12 The list of local permits, approvals and consultation found in Table 1.5-1 is incomplete. In addition to those listed, Sierrita will need to obtain the following County permits/approvals:

- Blasting Permit from the Pima County Department of Transportation under Pima County Code Title 8.
- Over Size/Over Weight Permit from the Pima County Department of Transportation under Pima County Code Chapter 8.6.
- Franchise Agreement from the Pima County Board of Supervisors under Pima County Code Title 10.

Substantively Incomplete DEIS

LA1-13 It also appears that FERC is requesting public review and comment on a substantively incomplete DEIS. Section 5.2 clearly identifies those numerous instances where FERC has found that DEIS information and documentation is incomplete and substantively lacking (see Numbers 11-18, 20, and 22). FERC expects receipt of this information prior to the closure of the DEIS public comment period (December 16, 2013). As of December 4, 2013, none of the missing information is available on the docket for either CP13-73-000 or CP113-74-000. It appears that at this late date, the public will not be afforded the opportunity to review and comment on the missing information. Access to this information is as critical to the public's review and analysis of the DEIS as it is for FERC; and FERC should not advance the process to the Final EIS phase without affording the public that opportunity. FERC must incorporate the missing information into a Supplemental EIS and release it for a formal public comment period, as well as extend the comment period accordingly. The DEIS is substantially flawed based on the above.

Thank you for the opportunity to comment on the draft plan.

Sincerely,



C.H. Huckelberry
County Administrator

CHH/mjk

Attachments

LA1-12 Pima County's comment regarding additional county permits is noted. Table 1.5-1 provides a list of the *major* permits, approvals, and consultations for the Project. Sierrita would be responsible for applying for all permits and approvals required to construct and operate the Project, regardless of whether or not they appear in this table.

LA1-13 See response to comment PM1-3.

The final EIS includes additional information provided by Sierrita and the cooperating agencies, as well as new or revised information based on substantive comments on the draft EIS.

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c: The Honorable Secretary John Kerry, US State Department
The Honorable Secretary Chuck Hagel, US Defense Department
The Honorable Acting Secretary Rand Beers, US Department of Homeland Security
The Honorable Secretary Sally Jewell, US Department of Interior
The Honorable Arizona Senator John McCain
The Honorable Arizona Senator Jeff Flake
The Honorable Arizona Congressman Raúl Grijalva
The Honorable Chairman and Members, Pima County Board of Supervisors
The Honorable Ned Norris Jr., Chairman, Tohono O'odham Nation
Daniel Ashe, Director, US Fish and Wildlife Service



Z-167



MEMORANDUM

Date: November 4, 2013

To: The Honorable Chairman and Member
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator

Re: **Kinder-Morgan Sierrita Pipeline Status Update and Mitigation Issues**

On October 25, 2013, the Federal Energy Regulatory Commission (FERC) issued its Notice of Availability of the Draft Environmental Impact Statement (DEIS) for the Sierrita Gas Pipeline – a new 36-inch gas pipeline running from west of the Tucson Mountains south through the Altar Valley for 60 miles. The Sierrita Pipeline will cross the international border with Mexico to join with an as-yet un-built pipeline in Mexico, running from Sasabe south to Puerto Libertad and Guaymas to supply natural gas to Mexico.

This new pipeline, to be permitted by FERC, is a major federal undertaking subject to the National Environmental Policy Act that will impact some 1,000 acres in Pima County. The recently released DEIS considers only one active alternative – the western route through remote areas to the west of the Buenos Aires National Wildlife Refuge to the international border with Mexico near Sasabe. While the route is opposed by the Tohono O'odham Nation, the Altar Valley Conservation Alliance, Pima County, Santa Cruz County, and other stakeholders, comments on the DEIS are due December 16, 2013, and the FERC will issue the final EIS by April 18, 2014 and very likely permit this project by July 17, 2014. Kinder-Morgan and its partners presume the FERC permit and the Presidential permit will be granted and requested in a recent letter to FERC that the approval process be further expedited to June 2014 so the pipeline can be built and in service by September 30, 2014.

Should the pipeline be approved as anticipated, the most significant impacts and costs to Pima County and the residents of Altar Valley can be expected in the areas of public safety, environmental damage, and ongoing degradation of the conservation values and investments made in the Altar Valley.

Staff are preparing comments on the DEIS for submittal to FERC by December 18, 2013; however, I asked that a status report be prepared for the Board of Supervisors as an update at this time. The attached report provides background information and a summary of the project's needed permits; its regulatory status; estimated tax revenues to Pima County; and a preliminary analysis of issues, costs, impacts, and recommended mitigation measures.

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LA1 – Pima County, County Administrator's Office (cont'd)

The Honorable Chairman and Members, Pima County Board of Supervisors
Re: **Kinder-Morgan Sierrita Pipeline Status Update and Mitigation Issues**
November 4, 2013
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We will request of both Kinder-Morgan and approving federal agencies full and complete mitigation of all impacts.

CHH/mjk

Attachments

c: Linda Mayro, Director, Sustainability and Conservation
Diana Durazo, Special Staff Assistant to the County Administrator

LA1 – Pima County, County Administrator's Office (cont'd)

Altar Valley Sierrita Pipeline Mitigation Issues and Recommendations

October 31, 2013

Public Safety Sheriff	Medical Examiner	Erosion Flood RFCD	Easements RP/DOT	Access Roads DOT	Ranch Issues NRPR	CLS Impacts OSC	PPC Credits NRPR	PPC Bank Land NRPR	Long-Term Env. Impacts
Costs/Impacts: Increased calls for vandalism, trafficking, emergency services, and increased deputy patrols.	Costs/Impacts: Increased UDI deaths due to migrant use of pipeline road, increased number of unclaimed human bodies.	Costs/Impacts: 210 washies to be open out and crossed by pipeline, and 100 acres of riparian area to be destroyed under FPUP.	Costs/Impacts: Sierrita has appraisals for submittal.	Costs/Impacts: Possible road degradation, erosion, loss of vegetation.	Costs/Impacts: Damage to open space, infrastructure, wells, fences, trash clean-up, etc. from unwanted pedestrian and vehicle traffic.	Costs/Impacts: Direct loss of county-owned Section 10 mitigation land and lease lands; as well as 1,000+/- acres of destroyed CLS habitat on ASLD and private lands.	Costs/Impacts: About 400+ acres of PPC habitat and about 130 PPC will be destroyed by pipeline.	Costs/Impacts: Sale of Madera Highlands will exhaust PPC bank there. County cost to replace same size PPC bank \$2,250,000.	Costs/Impacts: Long-term pipeline direct impacts of 1,000 acres will devalue past investments of \$2,100,000 by ranchers and agencies to stop erosion and improve watershed function.
Mitigation 1: Annual cost of \$461,436** (for 4 deputies, investigations, services) One time cost \$ 274,040* (vehicles)	Mitigation 1: Annual cost estimated \$174,000 to \$261,000**	Mitigation 1: Flat rate fee for impact mitigation in the range of \$2,500,000+/-*	Mitigation: TBD once easement documents and appraisals submitted.*	Mitigation: Cost of restoration of 13.1 miles at \$7,500/mile = \$98,250**	Mitigation: Annual costs for increased repairs, trash removal, etc. and staff time of \$200,000**	Mitigation 1: Compensatory mitigation land of 2,528 acres* to offset direct loss of 860.1 acres of CLS in Altar Valley, inclusive of County land.	Mitigation: Sale of Madera Highlands PPC credits at \$5,000/ credit for estimated cost to KM of \$2,250,000.	Mitigation: Funds from sale of Madera Highlands or land to replace 450 acres for new PPC Mitigation bank.	Mitigation: Establish a mitigation fund of \$7,000,000* to be used as endowment for monitoring and repair of damage.
						Mitigation 2: Compensatory mitigation land of 522.6 acres* to offset direct loss of County owned CLS in Altar Valley			Mitigation 2: Matching funds of \$1,500,000* for Altar Valley Watershed Restoration Bond Project

* One-Time Mitigation Costs: \$11,274,040

** Annual Mitigation Costs: \$ 1,020,686

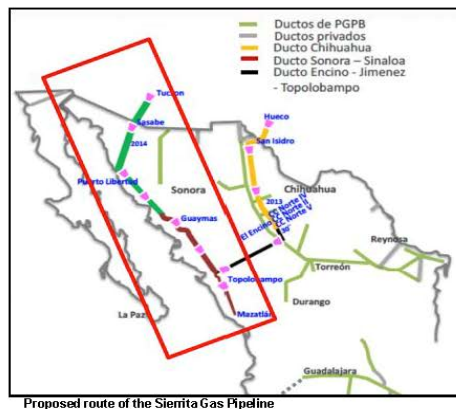
LA1 – Pima County, County Administrator's Office (cont'd)

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Proposed Kinder-Morgan Sierrita Pipeline- Altar Valley Update and Mitigation Recommendations

October 31, 2013

Kinder Morgan and its partners propose to build and operate the Sierrita Gas Pipeline, a large new 60 mile-long, 36" diameter natural gas pipeline in Pima County, with a right of way of 100-150' in width, running from the Tucson Mountains south through the Altar Valley to the international border with Mexico just west of Sasabe. The pipeline will cross the international border with Mexico to join with an as-yet unbuilt pipeline in Mexico from Sasabe to Puerto Libertad and south to Guaymas. The proposed pipeline, to be permitted by the Federal Energy Regulatory Commission (FERC), also requires a Presidential Permit to cross the international border with Mexico. The project will impact some 1,000 acres in the United States and is subject to the National Environmental Policy Act (NEPA), which requires preparation of an environmental impact statement (EIS) as a major federal undertaking. The Notice of Availability for the Sierrita Gas Pipeline Draft Environment Impact Statement (DEIS) was issued by FERC on October 25, 2013.



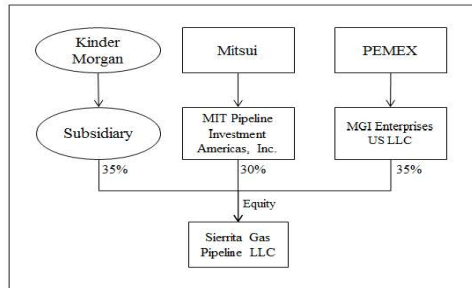
1. Sierrita Gas Pipeline LLC Investment Partners:

In July, 2013, Mitsui & Co., Ltd. ("Mitsui") announced the following: Mitsui has agreed with Kinder Morgan and the Mexican state owned oil company, Petróleos Mexicanos ("PEMEX") to participate in the pipeline project in Arizona to export US natural gas to Mexico. Mitsui will participate in and acquire, through its 100% owned US company MIT Pipeline Investment Americas, Inc., a 30% ownership stake in the project company, Sierrita Gas Pipeline LLC ("Sierrita").

MGI Enterprises US LLC, a wholly owned affiliate of Pemex Gas y Petroquímica Básica which is a subsidiary of PEMEX, will participate in and acquire a 35% ownership stake in Sierrita. Mitsui and PEMEX entered into an MOU on April 9, 2013 for the collaboration in the energy business such as natural gas, and this investment in Sierrita marks the first joint venture project to be undertaken under such MOU.

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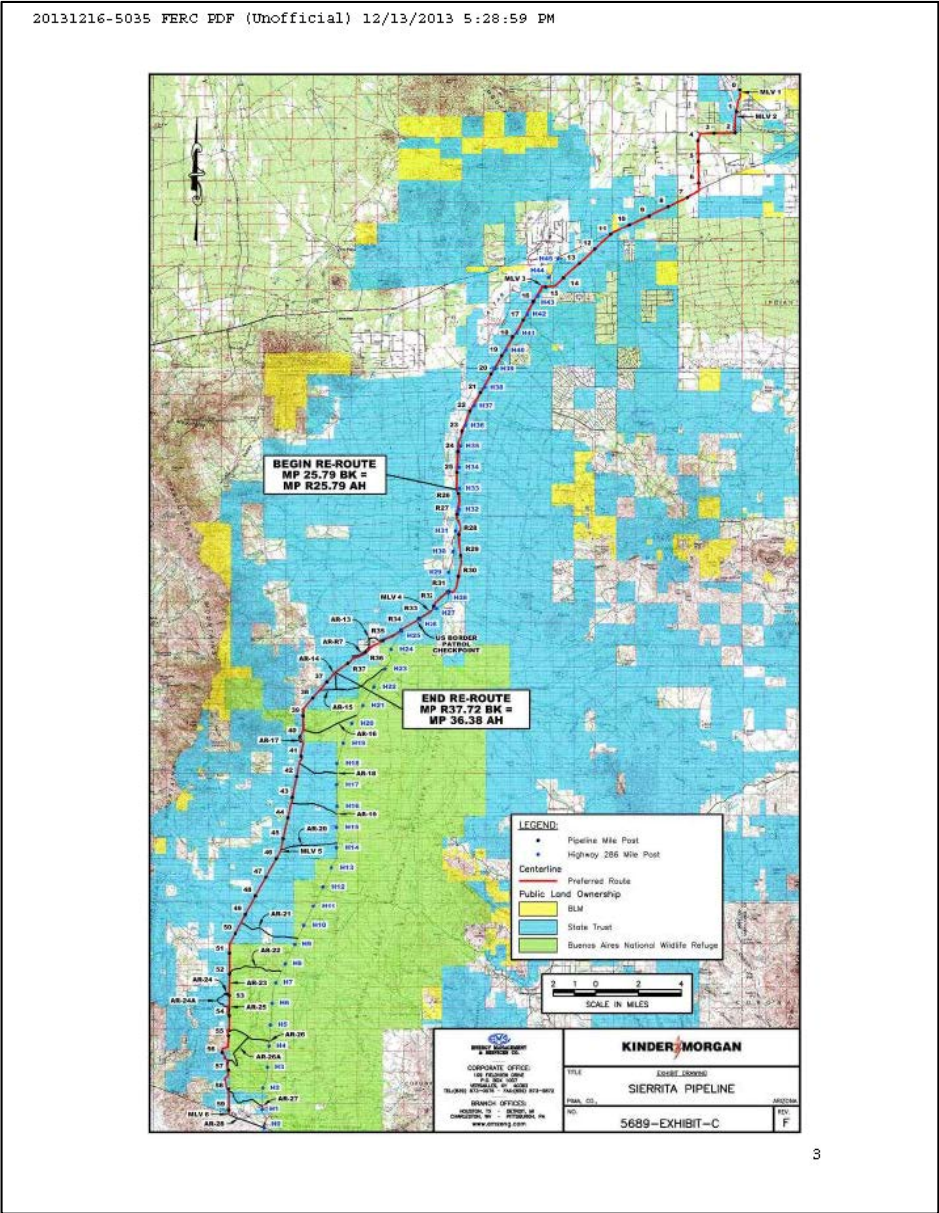
The project will have a design capacity of approximately 200 million cubic feet per day, and its estimated project cost is approximately \$200 million. MGI Supply, Ltd a wholly owned affiliate of Pemex Gas y Petroquímica Básica, which is a subsidiary of PEMEX, has executed a 25-year transportation service agreement with Sierrita for the full design capacity of the project. The project estimates an in-service date no later than September 30, 2014, subject to approvals from the US Federal Energy Regulatory Commission and the issuance of the Presidential Permit. Supported by the development of the shale gas projects in the US and Mexico and the stable growth of the Mexican economy, it is expected that the demand for the natural gas in Mexico will continue to increase. Through the cooperation with PEMEX and Kinder Morgan on the realization of this project, Mitsui plans to continue its efforts to contribute to the stable supply of energy through the expansion of the natural gas value chain both in Mexico and the US.

2. Project Background and Final Route Selection: 2012-present

Kinder Morgan (then El Paso Natural Gas) first met with county staff in spring 2012 to present what was then called the Sasabe Lateral pipeline. Staff prepared a background and issues report on October 1, 2012, and Pima County officially provided scoping comments to FERC on October 25, 2012. Due to significant issues pertaining to the likelihood of increased trafficking along the pipeline route, threats to public safety, and degradation of the environment, Pima County recommended the line be constructed along the federally designated utility corridor along I-19 to Nogales and not placed in the Altar Valley. Santa Cruz County and Nogales, AZ also asked that the pipeline follow I-19; however, Kinder Morgan maintained the I-19 route was not acceptable to their Mexican and international partners and that only the Altar Valley would be considered. Two routes in Altar Valley were initially under consideration – the east route adjacent to State Route 286, and the west route through remote areas to the west of the Buenos Aires National Wildlife Refuge (BANWR).

Despite expert opinion from within the US Fish & Wildlife Service (FWS) and other agencies that very significant impacts to the ecological integrity of the valley would ensue from construction of the west route, BANWR and the FWS Regional Director decided that the eastern route along SR 286 would not be compatible with the mission of the BANWR, leaving only the west route. Kinder-Morgan then filed application on February 7 and 8, 2013 with FERC for the west route, which was published by FERC on February 22, 2013. The pipeline route shown below follows SR 286 to Milepost 26 near the Border Patrol checkpoint where the pipeline route diverges from the road and heads southwest for some 30 miles into remote areas west of the BANWR. This is now the only action alternative that is being considered in the FERC DEIS.

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Because of the anticipated threats to public safety, impacts and degradation of the environment, and devaluation of county conservation lands from this pipeline, the Board of Supervisors, the Tohono O'odham Nation, and the Altar Valley Conservation Alliance have all taken positions in opposition to the construction of this pipeline in the Altar Valley. On March 12, 2013, the Board of Supervisors unanimously passed Resolution 2013-17 to state the County's opposition and protest of the Sierrita Pipeline in Altar Valley and to file a motion to intervene to become a party to the proceedings, and on April 5, 2013, the County filed a statement of opposition to: 1) the Sierrita Gas Pipeline, LLC application filed with FERC under Section 7c of the Natural Gas Act (NGA) to construct and operate a natural gas pipeline (Docket No. CP13-73-000); and 2) to their application pursuant to Section 3 of the NGA for a Presidential Permit and authorization to construct a new border crossing near Sasabe for the export of natural gas to Mexico (Docket No. CP13-74-000).

3. FERC Pipeline Restoration Plans:

Successful restoration of constructed pipeline routes in the Southwest to their pre-construction condition has proven to be extremely difficult if not impossible. In June 2013, FERC held a meeting in Tucson with interested stakeholders to review the Sierrita Pipeline draft restoration plans - "Reclamation Plan, Upland Erosion Control, Revegetation and Maintenance Plan, and Wetland and Waterbody Construction and Mitigation Procedures." This meeting was attended by about 65 people representing FERC, Kinder Morgan, the Altar Valley Conservation Alliance, area residents, biologists, Arizona State Land Department, Arizona Game and Fish, Fish & Wildlife Service, BANWR, Tohono O'odham Nation, Pima County, and Sasabe Ejido, Sonora.

FERC staff set the "rules" for the meeting stating it would only entertain discussion of the various vegetation and erosion reclamation plans. Discussion focused on the inadequacy of the plans, that respondents' comments have been ignored, the high probability that restoration would fail, that five years of monitoring is grossly inadequate, that "monitoring does not mean remediation" – only the documentation of failure, that no other KM pipelines have ever been successfully restored, and that there can be no assurances that vehicle traffic, foot traffic, and increased smuggling and trafficking can be prevented. Access to the pipeline was also discussed and will impact the following roads: ADOT highways SR-86 and SR-286; Pima County roads: San Joaquin Road, Snyder Hill, Elk Horn Ranch Road, La Delicias Road, Presumido Road, Aros Wash Road, Sierra Vista Ranch Road, El Mirador Road, Rancho de la Osa Road, as well as Brown Canyon Road, Santa Margarita Ranch Road and other access roads, several of which cross the BANWR. Impacts to the more than 200 wash crossings and the increased likelihood of erosion were also discussed. No borings under washes or the Altar Wash itself are being considered, and Kinder Morgan has filed for a Nationwide-12 Permit with the US Army Corps of Engineers (COE) under the Clean Water Act.

FERC responded they would take into consideration all comments provided and asserted that since this is a natural gas pipeline FERC has ongoing authority to make KM fulfill its obligations as a condition of its permit to restore the graded right of way. Questions were asked of Kinder Morgan as to what steps were being taken in Mexico to limit trafficking and to restore the pipeline right of way, and this was dismissed as "no one knows." The manager of the Sasabe Ejido indicated that they had been "well-paid" for the right of way that crosses the ejido and that residents of Sasabe, Sonora had no objection to the pipeline.

The discussion concluded with strategies for mitigation. FERC indicated they could not require any specific mitigation strategies outside the permitted 100' right of way, including the indirect impacts from erosion, invasive species, etc., and that off-site mitigation would have to be arranged between stakeholders and Kinder Morgan. Arizona Game & Fish suggested "a mitigation fund of several million dollars" for impacts. Kinder Morgan staff did not respond affirmatively, but

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Game and Fish and others reiterated there needs to be a compensatory mitigation package of land acquisition and funding to offset habitat loss and to mitigate long-term impacts. FERC concluded the meeting and noted that all comments would be considered in the EIS and that FERC would be publishing in the Docket the Notice of Schedule for release of the EIS.

4. Arizona State Land Department Right of Way Application:

The Sierrita pipeline as proposed will require significant right of way from the Arizona State Land Department (ASLD), as well as some private land, and public rights of way. The Kinder Morgan (El Paso Natural Gas Company LLC) filed application 14-116689 to the Arizona State Land Department on August 14, 2013 for an easement for the construction and operation of the Sierrita pipeline.

The estimated cost to Kinder Morgan for destruction of native vegetation on ASLD easement is \$3.0 million, and a 25 year agreement is currently being negotiated. Other than imposing this “stumpage fee,” it is not known what conditions might be imposed on Kinder Morgan by ASLD.

5. FERC Draft and Final Environmental Impact Statement:

Permitting of the Sierrita Gas Pipeline is considered a major federal undertaking by FERC, and is subject to the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), Clean Water Act, Section 7 of the Endangered Species Act, and other permits and approvals that are listed below. The Administrative Draft EIS was previously released by FERC to cooperating agencies – AZ Game & Fish, the US Fish & Wildlife Service and Customs and Border Patrol and the draft EIS was issued October 25, 2013. Comments on the Draft EIS are due on December 16, 2013.

On September 10, 2013, FERC issued its official notice of schedule for environmental review in the following statement:

NOTICE OF SCHEDULE FOR ENVIRONMENTAL REVIEW OF THE SIERRITA PIPELINE PROJECT

On February 7 and 8, 2013, Sierrita Gas Pipeline LLC (Sierrita) filed applications in Docket Nos. CP13-73-000 and CP13-74-000 requesting authorizations pursuant to Sections 7(c) and 3 of the Natural Gas Act, respectively, to construct, operate, and maintain certain natural gas pipeline facilities and to export natural gas. The proposed project is known as the Sierrita Pipeline Project (Project) and would link El Paso Natural Gas Company's (EPNG's) existing South Mainline System near Tucson to an interconnect with the Puerto Libertad Pipeline at the U.S.-Mexico border near the town of Sasabe, Arizona. The Project would be capable of transporting up to 200,846 dekatherms per day of natural gas.

On February 22, 2013, the Federal Energy Regulatory Commission (FERC or Commission) issued its Notice of Application for the Project. Among other things, that notice alerted other agencies issuing federal authorizations of the requirement to complete all necessary reviews and to reach a final decision on the request for a federal authorization within 90 days of the date of issuance of the Commission staff's final Environmental Impact Statement (EIS) for the Sierrita Pipeline Project. This notice identifies the FERC staff's planned schedule for completion of the final EIS for the Project.

- Issuance of Notice of Availability of the final EIS April 18, 2014
- 90-day Federal Authorization Decision Deadline July 17, 2014

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In a letter dated September 27, 2013, MGI Supply LTD. urged FERC to expedite the EIS process and permit approval so that the pipeline can start construction in June 2014 and be built and in-service by September 30, 2014. MGI stated in their letter that, "to do otherwise, will cost *"in the range of \$1.0 million (US) per day both from the economic loss for unused capacity on the Sasabe-Guaymas Pipeline and additional operational costs due to the inability to convert the Puerto Libertad Plant from heavy fuel to natural gas."* At present, the Altar Valley Conservation Alliance and Santa Margarita Ranch have officially protested the MGI presumption that the permit will be issued, and FERC has not formally responded in the Docket to the MGI request to expedite the EIS or the permit approval; however, the recent release of the DEIS was several weeks earlier than the date of mid-November that Kinder Morgan representatives provided to Pima County.

6. Status of Sierrita Pipeline Federal Permits:

Permit/Approval/ Consultation	Issue	Anticipated/Actual Date		Agency Contact	Comments
		Submittal	Approval		
U.S. Army Corps of Engineers - Los Angeles District					
Section 404 Clean Water Act - Nationwide Permit 12 (Notifying)	Dredge and fill activities in waters of the U.S.	August 2013	January 2014	U.S. Army Corps of Engineers Los Angeles District - Phoenix, Arizona Branch 3636 N. Central Avenue, Suite 900 Phoenix, Arizona 85012 Attn: Sallie DiBolt, Branch Chief Phone: (602) 230-6950 Fax: (602) 640-2020 Sallie.DiBolt@usace.army.mil U.S. Army Corps of Engineers Los Angeles District - Tucson, Arizona Office 5205 E. Comanche Street Tucson, Arizona 85707 Attn: Michael Langley, Pima County Regulatory Project Manager Phone: (602) 230-6900 Fax: (602) 640-2617 Michael.Langley@usace.army.mil	
Federal Energy Regulatory Commission					
Section 3 Natural Gas Act - Authorization to Construct and Operate Facilities Used for the Export of Natural Gas	Exportation of natural gas to Mexico	February 8, 2013	February 2014	Federal Energy Regulatory Commission Office of Energy Projects 888 First Street, NE Washington, DC 20426 Attn: David Hanoblic Phone: (202) 502-8312	Issued Docket No. CP13-74-000
Section 3 Natural Gas Act - Presidential Permit to Construct, Operate, and Connect Facilities	Crossing of United States-Mexico border	February 8, 2013	February 2014		Issued Docket No. CP13-74-000

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Section 7(c) Natural Gas Act - Certificate of Public Convenience and Necessity	Construction and operation of interstate natural gas pipeline facilities	February 7, 2013	February 2014		Issued Docket No. CP13-73-000
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U.S. Fish and Wildlife Service

General Special Use Permit (appropriateness determination)	Use of access roads within a National Wildlife Refuge	August 2013	March 2014	U.S. Fish and Wildlife Service Buenos Aires National Wildlife Refuge P.O. Box 109 Sasabe, AZ 85633 Phone: (520) 823-4251 sally_gall@fws.gov	
Section 7 Endangered Species Act Formal Consultation	Potential to adversely impact federally listed species and designated critical habitat	May 2013	March 2014	U.S. Fish and Wildlife Service Arizona Ecological Services Office 2321 W. Royal Palm Road, Suite 103 Phoenix, Arizona 85021 Attn: Steve Spangle, Field Supervisor Phone: (602) 242-0210 ext. 244 Fax: (602) 242-2513 steve_spangle@fws.gov U.S. Fish and Wildlife Service Arizona Ecological Services Office 201 N. Bonita Ave., Suite 141 Tucson, Arizona 85745 Attn: Jean Calhoun, Asst. Field Supervisor Phone: (520) 670-6150 ext. 223 jean_calhoun@fws.gov	Draft Biological Assessment filed on August 13, 2013
Migratory Bird Treaty Act Consultation	Potential to impact migratory birds or their nests or eggs	January 2013	March 2014		

International Boundary and Water Commission (USIBWC), United States Section

USIBWC Permit/License	Construction activities within the IBWC right-of-way	August 2013	February 2014	International Boundary and Water Commission - U.S. Section Boundary and Realty Office 4171 North Mesa, Suite C-100 El Paso, Texas 79902-1441 Attn: Duane C. Price, PLS, RLS, Boundary and Realty Officer Phone: (915) 832-4139 Duane.Price@ibwc.gov	
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Arizona State Parks, State Historic Preservation Office

Section 106 National Historic Preservation Act Consultation	Potential to impact cultural resources	October 2012	<i>Potential</i> MOA December 2013	State Historic Preservation Office 1300 W. Washington Street Phoenix, Arizona 85007 Attn: James Garrison, State Historic Preservation Officer Phone: (602) 542-4009 jgarrison@azstateparks.gov	
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7. Revenue to Arizona/Pima County from Transaction Privilege Tax (TPT)

In a response on August 8, 2013 to a question from FERC to verify if the Arizona Transaction Privilege tax would apply to the proposed project and, if so, to provide an estimate of the amount the tax would generate for the State of Arizona and/or Pima County, Kinder Morgan provided the following response:

Arizona Revised Statute 42-5067 describes the Transaction Privilege Tax (TPT) as it applies to pipeline operators that transport "oil or natural or artificial gas through pipes or conduits from one point to another point in this state." The TPT will not apply to Sierrita's gross income since the custody transfer of the gas itself will occur at the international boundary between the United States and Mexico and not within the State of Arizona. Additionally, the TPT will not apply to purchases of pipeline components because an exemption applies to such components when the pipeline is four inches or larger in diameter. Sierrita will qualify for this exemption since the pipeline will be 36 inches in diameter. However, the TPT will apply to payments to contractors for work performed to the physical land, such as clearing and grading, ditching, backfilling, and restoration of the easement that is part of pipeline construction. This amount has been estimated at approximately \$12.4 million and has already been included in the total price of the contract with the primary construction contractor. Finally, the TPT will not apply to other payments to contractors to construct the pipeline because the §42-5075(B)(7) exemption is applicable.

Response prepared by or under the supervision of D. Glen Eisen, Senior Counsel

While Kinder Morgan has provided FERC an estimate of \$12.4 million in TPT revenue to the State and/or Pima County, further analysis by Pima County Finance Department suggests that Pima County would receive only a small portion of the prime contracting tax revenue through "state-shared sales tax." The State would share a portion of 20% of the tax revenue it receives from 5% of its overall TPT rate (6.6% before 6/1/2013 and 5.6% from 6/1/2013) with all Arizona counties and incorporated cities/towns. It is estimated that the Pima County share of "state-shared sales tax" would be only about \$120,000, based on the overall \$12.4 million of TPT tax.

8. Ad Valorem Tax Revenue

In public meetings, Kinder Morgan representatives have asserted that Pima County would benefit from \$4.9 million in "ad valorem" taxes from the assessed value of the pipeline itself. In checking with the County Assessor and Finance departments, Kinder Morgan's annual property tax base would be determined by the Arizona Department of Revenue – Centrally Valued Property Unit.

The Pima County Finance Department refined this statement and offers the following analysis of the Kinder Morgan assertion of added value property tax revenue to Pima County. Based on the projected \$200 million pipeline cost, the original cost base would be \$200 million (+/- whatever adjustments ADOR may determine). When an 18% commercial property assessment ratio is applied to the \$200 million original cost base, the taxable value of the pipeline would be \$36 million for the first year. In following years, the taxable value would decrease by approximately 3% to 4% (depending on asset useful lives per ADOR CVP guidelines) each year, unless Kinder Morgan added new assets to the system.

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When Kinder Morgan prepared its pro forma tax estimates, the company likely had 2012 tax rates available. The 2012 tax rates for areas in which the pipeline would be located were:

<u>Tax Area</u>	<u>Applicable Tax Rate</u>	<u>Description of Area</u>
5100	\$10.3674	Altar Valley School District
5101	\$12.7698	Altar Valley School District & Fire District
3500	\$17.5198	San Fernando School District
“Average”	\$13.5523	

For the first year, the taxable value of the pipeline would be \$36 million. If the \$36 million taxable value is divided by 100 and the result is multiplied by the “average” tax rate of \$13.5523. The resulting amount of property taxes to all state and local authorities would be approximately \$4,878,828, which is in line with the \$4.9 million estimate from Kinder Morgan. Of that amount, approximately \$1.6 million would be realized by Pima County using 2013 tax rates.

\$200 Million Value For Plant In Service and Taxable Net Assessed Value of \$36 Million At 18% Commercial Assessment Ratio				
	2012 Tax Rates	Property Tax Assuming 100% Collection Rate	2013 Tax Rates	Property Tax Assuming 100% Collection Rate
Pima County General Fund Primary	\$3.4178	\$1,230,408	\$3.6665	\$1,319,940
Pima County Debt Service	\$0.7800	\$280,800	\$0.7800	\$280,800
Total Pima County Government	\$4.1978	\$1,511,208	\$4.4465	\$1,600,740

Assuming tax rates remain unchanged in following years, the amount of property taxes for state and local authorities would decrease by the estimated 3% to 4% depreciation rate as the pipeline's taxable value determined by ADOR.

9. Pima County Agreements/Permits Required for the Pipeline:

The following is a list of permits and other approvals that Kinder Morgan needs from Pima County in order to proceed:

1. Easement and Mitigation Agreement. Funding and possible compensatory lands, similar to the Pima County Agreement executed in August 2007 for KM pipeline that crossed Cienega Creek.
2. Easements on Pima County and RFCD property. Kinder Morgan has completed appraisals for and is ready to submit offers for permanent easements and TCEs.
3. Flood Plain Use Permits/Wash Crossings. Kinder Morgan consultant AMEC completed field analysis of all 200 + wash crossings. A report on the resulting data and recommendations will be ready soon, and Sierrita will meet with RFCD to review the results and discuss mitigation and restoration. Approximately 133 acres of riparian area will be impacted or destroyed by the pipeline.
4. License Agreement. Kinder Morgan is ready to submit for Board approval.
5. Air Quality Permits - To be determined.
6. Road Crossings and Access Road Right of Way Use Permits. The project engineering consultant is preparing permit drawings for each pipeline road crossing to be submitted to PCDOT. Access road submittal from Kinder Morgan will include road exhibits, table of planned use and improvements, vehicle and traffic counts, environmental technical memorandum, and request for heavy load permits. At present, virtually the entire pipeline, all wash crossings, and all road crossings are planned as “open cut.” The only borings planned include the CAP canal and state highways 86 and 286. The following table and project map above shows temporary access roads to be used for construction.

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Temporary Access Roads

Road		MP	New/Existing	Current Condition					New Temporary Disturbance (acres) ²
ID No.	Name			Ownership	Surface Type	Average Width (feet)	Length (feet)	Proposed Improvements/Modifications	
AR-01	(Unnamed)	0.7	Existing	U.S./Central Arizona Project	Gravel	20	1,345	Grade to 20-foot width	0.62
AR-02	S. Branch Road	2.3	Existing	Pima County	Gravel	20	82	Grade within existing road footprint	0.04
AR-03	(Unnamed)	2.5	Existing	Pima County	Dirt	20	75	Grade within existing road footprint	0.03
AR-04	S. Continental Road	2.6	Existing	Pima County	Gravel	20	82	Grade within existing road footprint	0.04
AR-05	(Unnamed)	6.3	Existing	Arizona Board of Regents	Gravel	20	215	Grade to 20-foot width	0.17
AR-06	(Unnamed)	7.1	Existing	Arizona Board of Regents	Gravel	20	245	Grade within existing road footprint	0.11
AR-07	S. Sanitario Road	7.6	Existing	State of Arizona	Gravel	20	185	Grade within existing road footprint	0.08
AR-08	(Unnamed)	16.5	Existing	State of Arizona	Gravel	20	202	Grade within existing road footprint	0.09
AR-09	(Unnamed)	19.0	Existing	State of Arizona	Dirt	12	150	Grade to 10-foot width	0.07
AR-10	(Unnamed)	19.7	Existing	Owner's Reserve	Asphalt	18	1,055	Noise	0.43
AR-11	(Unnamed)	19.8	Existing	State of Arizona	Gravel	10	1,761	Grade within existing road footprint	0.39
AR-12	(Unnamed)	19.8	Existing	State of Arizona	Dirt	10	2,240	Grade within existing road footprint	0.52
AR-13	(Unnamed)	19.8	Existing	State of Arizona	Gravel	10	383	Grade within existing road footprint	0.09
AR-14	(Unnamed)	19.8	Existing	State of Arizona	Dirt	10	347	Grade within existing road footprint	0.09
AR-15	Edison Ranch Road	19.8	Existing	State of Arizona	Dirt	15	824	Grade within existing road footprint	0.20
AR-16	(Unnamed)	19.8	Existing	State of Arizona/Santa Margarita Ranch Inc.	Dirt	12	7,915	Grade within existing road footprint	2.19
AR-17	(Unnamed)	19.8	Existing	State of Arizona	Dirt	9	4,410	Grade to 10-foot width	2.67
AR-18	Las Delicias Road	17.4	Existing	State of Arizona	Dirt	16	10,000	Grade to 20-foot width	8.75
AR-19	Brown Canyon Road	39.6	Existing	State of Arizona/US	Dirt	24	15,950	Grade within existing road footprint	8.79
AR-20	(Unnamed)	40.0	Existing	State of Arizona	Dirt	10	1,975	Noise	0.45
AR-21	(Unnamed)	41.2	Existing	US/State of Arizona/Santa Margarita Ranch Inc.	Dirt	10	10,240	Grade to 20-foot width	4.77
AR-22	Silverleaf Ranch Road	41.2	Existing	State of Arizona/Santa Margarita Ranch Inc.	Dirt	25	12,150	Grade within existing road footprint	4.42
AR-23	Santa Margarita Road	41.4	Existing	State of Arizona/US	Dirt	25	14,000	Grade within existing road footprint	8.05
AR-24	Pennant Road	49.3	Existing	State of Arizona/Santa Margarita Ranch Inc.	Gravel	25	13,180	Grade within existing road footprint	8.71
AR-25	Arco Wash Road	51.8	Existing	BANWR	Gravel	22	13,050	Grade within existing road footprint	6.89
AR-26	(Unnamed)	52.0	Existing	State of Arizona/US	Dirt	13	4,950	Grade to 20-foot width	2.27
AR-27	(Unnamed)	52.0	Existing	State of Arizona	Dirt	10	2,490	Grade within existing road footprint	0.57
AR-28	(Unnamed)	53.5	Existing	State of Arizona	Dirt	10	7,120	Grade within existing road footprint	1.84
AR-29	(Unnamed)	53.9	Existing	State of Arizona/US	Dirt	10	6,000	Grade within existing road footprint	1.84
AR-30	Santa Vito Road	54.4	Existing	BANWR	Gravel	22	11,290	Grade within existing road footprint	5.70
AR-31	(Unnamed)	54.8	Existing	BANWR	Dirt	12	13,490	Grade within existing road footprint	3.69
AR-32	El Mirador Road	58.0	Existing	State of Arizona/US	Gravel	22	10,440	Grade within existing road footprint	5.77
AR-33	Border Road	58.2	Existing	Babouyan LLC	Gravel	25	9,800	Grade within existing road footprint	5.82

10. Summary and Stakeholder Recommendations:

The most significant impacts and costs to Pima County and the residents of Altar Valley can be expected in the areas of public safety, environmental damage, and ongoing degradation of the conservation values and investments made in the Altar Valley.

Resource reports provided by Kinder Morgan to date do not provide sufficient detail to fully disclose and quantify the direct, indirect, and long-term cumulative impacts of the pipeline, and the proposed FERC and Kinder Morgan reclamation/ restoration plans are inappropriate for this area and generic in treatment. Moreover, other pipelines recently constructed in Pima County by Kinder Morgan remain virtually barren after 6 years or more of restoration monitoring, and there is little to no confidence that restoration efforts will ever be effective unless there are new standards and obligations set by FERC and local and state government agencies, which will require a significant investment of resources by Kinder Morgan to be effective.

In discussing these issues at meetings among various stake holders including County staff, the Altar Valley Conservation Alliance, Altar Valley residents, BANWR, the Cultural Affairs manager of the Tohono O'odham Nation, Arizona Game and Fish, and others, there was consensus that the following recommendations be presented to Kinder Morgan as the basis for mitigation of environmental impacts, assuming the pipeline is approved and permitted.

1. **Detailed Assessment/ Restoration Plans** - The detail of the current draft EIS and mitigation/remediation plans are insufficient to do a proper analysis and ensure protection of the base resources of the lands impacted. Much of the resource information is incomplete, and FERC restoration plans are not consistent with the project area's

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ecological systems. It is therefore recommended that the applicant provide detailed mile by mile resource inventories, impact assessments, and remediation and restoration plans.

2. Oversight Committee - An independent project monitoring and remediation oversight committee made of agencies, property owners and other stakeholders in Altar Valley should be required of Kinder Morgan to establish and ensure landscape level consistency and implementation of appropriate mitigation measures during the initial restoration period and over the long term since the impacts from this project will take decades to track. The committee would be comprised of various stakeholders in Altar Valley and include a range of technical experts to determine priorities and best approaches to implementing mitigation measures.
3. Mitigation Endowment Fund – Environmental impacts from this pipeline will be long-term, if not permanent, and will cause ongoing degradation of conservation values and investments made in the Altar Valley. A significant monitoring and remediation fund, or mitigation endowment, should be established by Kinder Morgan to cover the costs of long-term and ongoing monitoring and repair of environmental damage. Over the last ten years, Pima County, the AVCA and other agencies have invested about \$2.1 million in grants and other funding sources to implement various conservation actions. To prevent devaluation of these investments, a minimum of \$200,000 per year is estimated as necessary to maintain and expand these conservation efforts as possible. Assuming an annual 3 percent return on any investment, establishing a mitigation fund of \$7,000,000 is recommended to meet this goal.

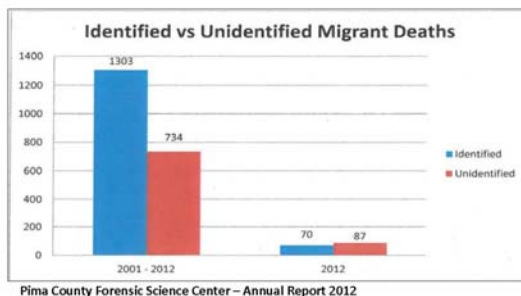
11. Estimated Costs To Pima County and Recommended Mitigation

In addition to these stakeholder recommendations to offset environmental degradation, the following section presents a set of issues to be addressed together with estimated costs to Pima County that are likely to result from the pipeline that affect several County departments. The following preliminary cost estimates, funding, and mitigation recommendations are provided for review and consideration:

1. Public Safety- Sheriff – The Sheriff's Department is recommending that four additional law enforcement deputies and vehicles will be required for increased emergency calls and timely responses to incidents, as well as the need for increased patrols. In September 2012, Lt. Jim Murphy provided a cost estimate of \$461,436 in annual costs plus an initial one-time cost of \$274,040 to mitigate the costs to the Sheriff's Department associated with the increase in demand for law enforcement. Calculations included four additional deputies for routine patrol (\$311,436); incident investigation (\$125,000); outside resources (\$25,000) in annual costs. Start-up costs include four 4WD vehicles (\$224,040) and two ATVs (\$50,000). These recommendations and costs were verified by Lt. Nicole Feldt, Commander of the San Xavier District, on 10/11/2013.
2. Migrant Deaths - Medical Examiner and Public Fiduciary – With more than 300 miles of new pipeline route in Mexico and Arizona, essentially creating a new "highway" for travel, migrant deaths are likely to increase as a consequence. This year there have been 152 individuals recovered, an increase of 19 percent from last year at this time. Costs to Pima County are substantial – about \$2,000-\$3,000 per individual who remains unidentified and un-repatriated. From 2001-2012, there were 2,037 migrant deaths, and 734 who remain unidentified. In 2012 alone, there were 157 migrant deaths and 87 who remain unidentified. Current costs to Pima County of \$174,000-\$261,000 per year are likely to increase once the pipeline is built and if this upward trend continues.

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3. **Erosion/Flood Control RFCD** - Some 210 washes in Altar Valley, including Altar Wash itself and Brown Canyon, will be crossed by the pipeline, which will be subject to a Floodplain Use Permit. Kinder Morgan has also applied to the COE for a Nationwide 12 permit, which is under review. We understand that the COE is not likely to require any mitigation.

It is anticipated that about 133 acres of regulated riparian habitat will be impacted by the pipeline. Kinder Morgan is finalizing its estimate of total disturbance within the pipeline right of way and in ancillary areas from other activities, and is working with the Regional Flood Control District (RFCD) to apply the Riparian Classification Map to determine the types of riparian habitat that will be disturbed. These parameters are used to determine the project's mitigation obligation. In response to Kinder Morgan's inquiry about the potential cost for mitigation, the following table was provided by RFCD as a flat rate that could be applied. This Table is excerpted from the *Regulated Riparian Habitat Off-site Mitigation Guidelines Manual*, dated Nov. 2011.

	XA	XB	XC	XD	H, IRA/H	IRA/XA	IRA/XB	IRA/XC	IRA/XD
Cost per Acre	\$17,000	\$16,000	\$14,000	\$12,000	\$40,000	\$30,000	\$28,000	\$25,000	\$22,000

Using this Table, a very preliminary estimate of their mitigation obligation would be in the range of \$2,500,000+/- . Some of the assumptions used by RFCD in this cost estimate include:

- 1) Use of flat fee to estimate mitigation dollar value. Kinder Morgan could prepare a different estimate of anticipated dollar value for mitigation.
- 2) Assumption of 133 acres of disturbance. The actual areas of disturbance are currently being refined in a few locations that may cause this number to change. The estimate currently assumes full disturbance of the right of way, and smaller right of way footprints might result that would reduce disturbance and mitigation costs.
- 3) No other mitigation is occurring. If other mitigation is proposed by Kinder Morgan or required by a different entity, it is possible these efforts, depending on the mitigation, could be used offset some of this mitigation requirement.

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In addition to the regulated riparian habitat mitigation obligation for this project, it is also recommended that matching funds for the proposed **\$1.5 million bond project** for the Altar Valley Watershed Restoration Project be provided for detailed inventory of erosion problems, and geomorphology and soils studies of the valley. These studies will assist in prioritizing and addressing the most immediate erosion problems using structural and vegetative solutions. Remedying of erosional features such as head-cutting along upland tributaries that could affect the integrity of the pipeline would help to ensure public safety as well as help restore watershed function.

4. **Right of Way Easements - RP, DOT** - Kinder Morgan has prepared appraisals for County right of way and temporary construction easements needed for pipeline construction including a one mile long segment that along Snyder Hill Road. These appraisals have not yet been submitted to Pima County for consideration, but the appraisal costs of these easements will be reviewed by Pima County, and appropriate compensation determined.
5. **Access Road Maintenance- DOT** – In addition to construction of the 60 mile long pipeline, approximately 36 miles of dirt and gravel roads maintained by various agencies and private land owners would be graded and some widened to provide access and accommodate heavy equipment for pipeline construction. A table of proposed access roads is provided above, and the DEIS states that some 30 access roads would be improved or modified affecting nearly 85 acres. Approval to use these roads is not fully determined at this time; some 11 access roads cross through BANWR and are subject to an “appropriateness determination” by the FWS, and approximately 13.1 miles of access roads are maintained by Pima County and will require permits to grade and widen. FERC notes in the DEIS that restoration of roads is very difficult. Because trees and mature vegetation would be removed, reseeding will not fully restore the roads, and erosion and other damage are likely to ensue over time. Because these County-maintained roads require will additional maintenance and restoration, the cost to Pima County to maintain these roads is **\$7,500 per mile, or \$98,250 total annual costs.**
6. **Open Space Management- NRPR** – Because the pipeline will open up areas to unwanted and illegal vehicular and pedestrian traffic, this impact directly compromises the County’s ability to maintain a responsible level of land stewardships and burdens NRPR to fund and maintain fundamental infrastructure and livestock operations. NRPR estimates the annual additional costs of fencing and waters repairs, trash clean-up, and incident responses due to the pipeline to be **\$200,000.**
7. **CLS Impacts – OSC** – The Sonoran Desert Conservation Plan identified the Altar Valley as having exceptionally high value habitat conservation values. Compensatory land to County is recommended due to direct loss and impacts to the Conservation Lands System (CLS). Using estimates of 860.1 acres of impact in the CLS, approximately **2,528.6 acres of mitigation land** is needed to offset impacts using the mitigation ratio per CLS guidelines. Direct loss of CLS high value habitat and open space is estimated as follows:

Direct Impacts and Loss of CLS Land throughout Altar Valley			
CLS category	Acres of Impact	Mitigation Ratio per CLS guidelines	Mitigation Acres
IRA	64.2	4	256.8
Bio Core	340.0	4	1360
Multiple Use	75.1	2	150.2
SSMA	380.8	4	761.6
Total in CLS	860.1		2,528.6

LA1 – Pima County, County Administrator’s Office (cont’d)

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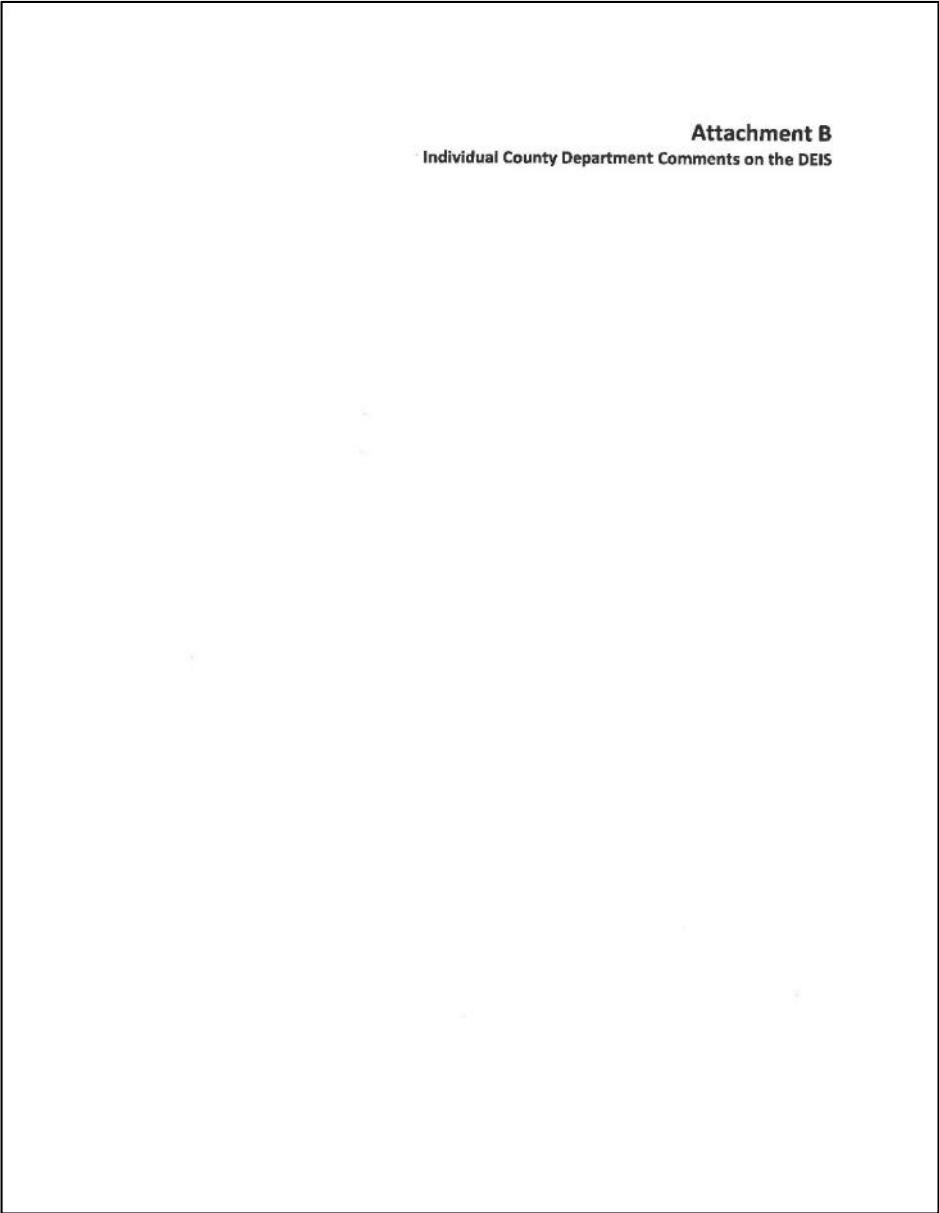
Direct loss of County-owned CLS conservation fee lands and grazing leases that could serve as future County Section 10 permit mitigation lands is 127.3 acres. Applying CLS mitigation ratios to County owned and leased lands requires **522.6 acres** to offset the loss of these lands.

Direct Impacts and Loss of CLS Land in Altar Valley owned by Pima County			
CLS category	Acres of Impact	Mitigation Ratio per CLS guidelines	Mitigation Acres
IRA	6.7	4	40.2
Bio Core	0.0	4	0.0
Multiple Use + SSMA	120.6	4	482.4
Total in CLS	127.3		522.6

8. **Madera Highlands PPC Mitigation Bank -NRPR** – Kinder Morgan will be required by the FWS to mitigate the loss of Pima Pineapple Cactus (PPC). We understand that Kinder Morgan will be required to purchase in excess of 400 PPC mitigation credits from a recognized PPC mitigation bank. There are approximately ca. 450 PPC remaining PPC credits held in the County-owned Madera Highlands PPC bank. If sold to Kinder Morgan at **\$5,000 per credit**, this would generate approximately **\$2.0 - \$2.25 million**.
9. **PPC Mitigation Bank Replacement- NRPR** – Sale of the 450 Madera Highlands credits will essentially exhaust the County’s PPC bank. Because it will be to Pima County’s benefit to hold a PPC bank in the future, it will be necessary to either acquire additional land elsewhere for such use or to designate currently owned land as future PPC bank. Approximately **450 acres** are required should the Madera Highlands PPC bank be sold.
10. **Mitigation Endowment Fund for Altar Valley** – The Sierrita pipeline will directly impact some 1,000 acres along its length from clear-grading of all vegetation along its right of way, access roads, staging areas, and ancillary disturbances. Past failures of pipeline restoration efforts indicate that the direct and indirect impacts from Sierrita pipeline construction will leave more than 1,000 acres in a highly degraded state. More than **\$2.0 million** has been invested in Altar Valley conservation efforts by state and federal agencies, the Altar Valley Conservation Alliance, and Pima County. These efforts to stop erosion, improve watershed and ecological function, and enhance forage and wildlife habitat will be permanently compromised by the pipeline and will devalue these investments significantly. As suggested by various agencies and stakeholders, it is recommended that Kinder Morgan create a mitigation fund in the amount of **\$7.0 million** as an endowment to generate sufficient annual funds to maintain and improve local and agency investments and to cover the costs of long-term and ongoing monitoring and repair of environmental damage caused by the construction of the Sierrita pipeline.

To conclude, the above costs and recommendations are preliminary attempts to quantify costs to Pima County and what funding and compensatory lands might be required to offset impacts to public safety and the environment from the pipeline, and the resultant long-term degradation of the exceptional conservation values of Altar Valley. These cost and mitigation estimates will undoubtedly continue to be refined as the project unfolds, but the current report begins to frame the magnitude of what can be expected.

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Sierrita Pipeline Project Draft Environmental Impact Statement

Pima County Comments

Regional Flood Control District

Flood Control District staff has reviewed the DEIS and offers the following comments. Within the DEIS, FERC and Sierrita have acknowledged the Pima County Regional Flood Control District (District) concerns and authority that were identified during the stakeholder scoping process. These include floodplains, erosion hazards and riparian habitat at ephemeral wash crossings, and minimization of off-site (i.e., beyond limits of ROW) adverse impacts in the form of gully formation due to diverting surface runoff off the ROW. The DEIS acknowledges that vegetation loss and erosion are amongst the greatest environmental impacts requiring mitigation and proposes several improvements to the measures proposed by Sierrita.

The District recommends addition of language at specific points throughout the DEIS to be added for the FEIS. These additions are meant to reiterate the intent to comply with District requirements regarding floodplains, riparian habitat, reduction of off-ROW erosion impacts, and in some cases improve reclamation and mitigation success, and reporting procedures. These *recommendations* are consistent with the treatment of other County roles and are meant to clarify rather than alter the intent. Generally speaking they focus on the need to minimize and mitigate impacts to riparian vegetation as the loss of vegetation is considered a long term to permanent impact with effects on erosion, groundwater recharge, and other resources. Since erosion control and riparian habitat mitigation *requirements* will be a part of the local *permitting/review* process, having compatible requirements in the FEIS is appropriate. For the purposes of DEIS review we have made recommendations for additions throughout the document including appendices and to FERC's recommended "conditions" listed in Section 5.

LA1-14

1. On page ES-4 in the Geology, Paleontology and Soils section, FERC recommends that Sierrita identify how it will protect topsoil from erosion during construction and flash flooding. These measures must be specified during permitting, should function beyond the construction period, and therefore should be enumerated in the FEIS. It is recommended that the applicant continue to meet with the District prior to finalization of the FEIS to complete the *permitting/review* process and ensure designs and construction measures included in the FEIS comply with county requirements. These methods are addressed on page 4-14. Generally speaking the comments below recommend including Pima County Regulated Riparian Habitat (PCRRH) as areas that should be assessed for impact mitigation, including alternative low impact installation methods (e.g. HDD), alternative methods of erosion control and reduced ROW width. In addition, the District has observed that some of the erosion control measures, including waterbars, installed at other natural gas pipelines within the County have caused off-site adverse impacts. These adverse impacts include gully formation beyond the termination point of constructed waterbar (or slopebreakers). We will provide criteria for waterbar (and slopebreaker) placement and design to prevent as well as introduce alternate erosion control methods to reduce off-site

LA1-14

See response to comment FA2-3.

Section 4.2.4 has been updated to include clarification from Sierrita regarding how it would protect topsoil piles from erosion in response to our recommendation in the draft EIS. While we have reviewed Sierrita's construction and restoration plans and find them acceptable to reduce the Project-related impacts identified in the EIS, we note that permitting agencies and private landowners may wish to have additional restoration and mitigation measures implemented on their property.

Sierrita would continue to consult with the Pima County RFCD to determine when rock water bars, terraces, and/or riprap would be beneficial as a method to inhibit erosion at dry washes. In addition, we recommended in section 4.2.2 of the final EIS that prior to construction Sierrita file a revised version of its Plan that identifies rock terraces as a measure to control erosion. Further, Sierrita committed to retaining a hydrogeologist during dry wash construction to evaluate onsite conditions. This individual would help evaluate erosion potential, check calculated scour depth/setback distances and make site recommendations. Also, Sierrita's EIs would be responsible for identifying erosion/sediment control and soil stabilization needs in all areas, as discussed in Sierrita's Plan. Further, a third-party compliance monitor under the direction of the FERC would be onsite during construction documenting Sierrita's construction and restoration, and FERC staff would periodically inspect the Project area during construction and restoration.

Regardless of the erosion control material or method adopted, Sierrita would be required to use, install, and maintain erosion control devices in a manner that reduces runoff velocity, diverts water off the construction right-of-way, and/or prevents the deposition of sediments beyond approved workspaces or into sensitive resources.

LA1 – Pima County, County Administrator’s Office (cont’d)

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LA1-14 (cont'd)	adverse impacts which will also have related benefits for vegetation, restoration and reducing unauthorized access to the ROWs. This will include: 1) acceptable methods to terminate waterbars within the ROW; 2) alternative runoff collection structures to impound surface runoff where acceptable waterbar termination is not available, including methods to reduce upbasin erosion to maximize the life of these structures and functionally similar features like rolling dips.
LA1-15	2. On page ES-4 in the Waterbody Crossings, Water Use and Wetlands section, FERC recommends that horizontal directional drill (HDD) methods be evaluated for use in crossings in addition to the CAP to avoid impacts to riparian habitat. The District recommends that the phrase “or other low impact methods including drag sections” be added here after HDD. The District concurs with the recommendation to evaluate expansion of HDD to riparian habitat. The District agrees that areas classified as Important Riparian Area (IRA) should be prioritized. This language, as noted below, should also be added to the ROW width justifications to be completed prior to the final FEIS.
LA1-16	3. On page ES-5 in the Vegetation, Wildlife, Fisheries and Federally Listed and State-Sensitive Species section, FERC recommends that Sierrita provide site specific justifications for construction right of way widths at wash crossings and riparian areas. The District believes that the definition of riparian areas is consistent with and inclusive of PCRRH. <i>For clarity Pima County recommends adding the term PCRRH to Condition 17B.</i>
LA1-17	4. Please modify Section 2.3.2.2 to refer to the Pima County designated Important Riparian Areas as locations to evaluate the feasibility of the use of HDD. The District also recommends calling out Brown Wash and Altar Wash as particularly good candidates for HDD.
LA1-18	5. For the FEIS, please add acreages of riparian habitat impacted by access road improvements. This issue has not been evaluated by Pima County yet.
LA1-19	6. The description of the Operation and Maintenance on page 2-22 section 2.6.1.1 indicates that during the lifetime of the project monthly flyovers will be conducted to inspect for vegetation and erosion amongst other issues. Furthermore during construction <i>Environmental Inspectors</i> (EIs) are to submit weekly reports. The District requests that these reports be available for District review. Should the need for corrective measures be identified notification is requested through the EI reporting process.
LA1-20	7. On page 4-19 in section 4.2.2., the District recommends adding rock terraces as potential mitigation for side slope erosion.
LA1-21	8. The negative impacts of riparian vegetation removal on flash flooding are acknowledged on page 4-37. The related process of channel incision and groundwater decline is also acknowledged in the soils, vegetation and cumulative impacts sections. The District agrees with these findings.
LA1-22	9. On page 4-39 Section 4.3.2.6 Waterbody Construction Procedures and Mitigation, FERC notes that Sierrita would provide rip rap at ephemeral wash banks and revegetate riparian areas with grasses and woody species. The District recommends that the rock terraces be included as erosion mitigation and identify specifically at which wash crossings they would

LA1-15	Pima County’s comment regarding other low impact methods is noted. Section 4.3.2.6 has been updated to discuss Sierrita’s evaluation of crossing dry washes and associated riparian areas using the HDD method to reduce environmental impacts. “Drag sections” are typically installed to reduce right-of-way widths; however, use of this method would be precluded because of the workspaces required at wash crossings for pipe burial depth as determined by the Scour and Lateral Bank Migration Analysis completed in coordination with the Pima County RFCD.
LA1-16	Section 4.0 of the final EIS has been reviewed, and “riparian habitat/areas” has been replaced with Pima County Regulated Riparian Habitat (PCRRH) where appropriate. Section 4.4.8.2 has also been updated to explain that Sierrita’s right-of-way width and ATWS placement is due to setback, etc. requirements from the Pima County RFCD.
LA1-17	See response to comment LA1-15.
LA1-18	We expect that information necessary by Pima County to process Sierrita’s permit application (in addition to that described in the EIS), would be requested of Sierrita by the permitting agency during the permitting process. Furthermore, Sierrita would need to comply with conditions or specific mitigation measures provided in non-federal agency permits, to the extent that such permits do not unreasonably delay, conflict with, or prevent implementation of federal requirements.
LA1-19	All information filed by Sierrita after issuance of the FERC Certificate (if approved), including its weekly reports and quarterly reports documenting operations and maintenance issues, would be part of the public record for the Project and would also be available for viewing on the FERC website (http://www.ferc.gov) under Docket Nos. CP13-73 and CP13-74.
LA1-20	Pima County’s comment regarding adding rock terraces as potential mitigation for side slope erosion is noted. Section 4.2.2 has been updated to include rock terraces as potential mitigation for side slope erosion.
LA1-21	Pima County’s concurrence is noted.
LA1-22	Pima County’s comment regarding using rock terraces as erosion mitigation at wash crossings is noted. Sierrita committed to continuing consultations with the Pima County RFCD to determine when riprap would be beneficial as a method to inhibit erosion at certain dry washes. Section 4.3.2.6 has been updated accordingly.

LA1 – Pima County, County Administrator's Office (cont'd)

Z-188

LA1-22 (cont'd)	be used. The benefit of the rock terraces includes a durable barrier to prevent gully formation, a terrace for ponding water on-site to encourage vegetation growth along the channel overbank, and as a way to reduce unauthorized vehicular access on the ROW resulting in further degradation of the area.
LA1-23	10. For the FEIS provide a mile by mile table of which type of slope stabilization erosion control methods are to be used.
LA1-24	11. On Page 4-43 in section 4.3.2.6 the District recommends including Pima County designated Important Riparian Area as areas where HDD feasibility should be considered and specifically call out Brown Wash and Altar Wash. The scour depth of the Altar Wash has not been calculated by the applicant or agreed to by the District and the resultant depth may be too deep for traditional construction methods.
LA1-25	12. On Page 4-60 in section 4.4.8, the District recommends inclusion of rock terraces as a method to mitigate for vegetation loss. By impounding water within the right of way, the increased water supply will encourage vegetative restoration.
LA1-26	13. The District agrees with the bolded recommendations on page 4-67 regarding the need for site specific justification and potential revision of ROW widths for ephemeral wash crossing that coincide with riparian habitat. Sierrita has submitted and the District is reviewing riparian disturbance calculations within the ROW but the submittal has not included any justification of widths. In addition, the District has yet to receive an engineering analysis justifying alternative lateral migration distances and the need for any erosion protection where the pipe crosses ephemeral washes. The District has direct experience with the permitting of utility lines of all types and public safety remains our priority, however we are also responsible for: 1) riparian habitat protection including restoration and mitigation of disturbance, and 2) insuring no adverse impact beyond the ROW; this adverse impact may be due to flood or erosion. The District recommends adding "d. a table of locations where access roads to be widened cross ephemeral washes and riparian areas and an assessment of the ability to restrict or reclaim improvements widths to 10 feet."
LA1-27	14. Despite the proposed mitigation measures and recommendations, the DEIS concludes, on page 4-68 that impacts to riparian areas "would be a long-term to permanent impact." Therefore, some off-site mitigation is appropriate and will be addressed independently by the County. Furthermore, the District recommends replacing waterbars with alternative structures at locations where waterbars cannot be properly terminated to promote revegetation and in particular riparian habitat within the ROW.
LA1-28	15. Page 4-77 indicates that impacts to wildlife would be minimized by replanting including seeding, seedlings and transplants. Elsewhere the DEIS indicates that riparian areas are the most significant resource to wildlife. The District is assuming the on-site mitigation will not occur within the ROW since a reliable water source does not exist. If required by FERC, a reliable water supply to ensure successful mitigation will need to be considered.
LA1-29	16. On page 4-78 add the phrase "or Pima County designated Important Riparian Area" to the 11 th bullet as an area wherein herbicide and pesticide application is avoided.
LA1-30	17. On page 4-88 add the phrase "including Pima County" to the last sentence of the second paragraph, indicating that the County is to be included in the agencies which FERC and
<div>Sierrita Pipeline DEIS</div> <div>Pima County Comments</div> <div>Page 3 of 26</div>	

LA1-23 The FERC does not require the submittal of detailed drawings that show the exact placement and method used to be to control erosion. Based on our knowledge and review of pipeline projects, we note that effective erosion control measures must be appropriate for the site based on current, site-specific conditions. Therefore, site-specific erosion control measures would be determined and approved by the EI during active construction and restoration, and consist of one or more of the temporary and permanent erosion control measures identified in Sierrita's Plan and Procedures.

Also see response to comment LA1-14.

LA1-24 See response to comment FA2-3.

LA1-25 Pima County's comment regarding using rock terraces as vegetation loss mitigation is noted. Also see response to comment LA1-20.

Rock barriers would also assist with revegetation efforts by creating microsites that collect seeds, soil, and moisture. Other measures, such as surface roughening of the right-of-way, placement of woody vegetation, and implementation of water bars, described in section 5.0 of Sierrita's revised *Reclamation Plan*, would also further promote revegetation success by encouraging moisture retention.

LA1-26 See responses to comments FA2-3 and LA1-18.

LA1-27 Pima County's comment regarding addressing off-site mitigation independently is noted.

Also see response to comment LA1-14.

LA1-28 Pima County's comment regarding the need for a reliable water source to ensure successful mitigation is noted. Sierrita's restoration measures, including those for PCRRH, are identified in its Plan, Procedures, *Reclamation Plan*, and *Post-Construction Vegetation Monitoring Document*. Sierrita does not plan to use water as a vegetation restoration measure.

LA1-29 Section 4.5.2 has been updated accordingly.

LA1-30 Sierrita would meet with the FERC and other appropriate agencies to identify and evaluate problem areas to determine the reason for the lack of success after the second growing season. Also see response to comment SA6-12.

Further, as stated in section 4.4.8.2, according to Pima County Title 16 Chapter 16.30 of the Watercourse and Riparian Habitat Protection and Mitigation Requirements, Sierrita would be required to develop a Riparian Habitat Mitigation Plan for impacts to PCRRH. The Pima County RFCD must review and approve this plan. As a condition of Pima County, annual monitoring reports would be required, and Pima County RFCD would inspect mitigation areas on an annual basis.

Local Agency Comments

LA1 – Pima County, County Administrator's Office (cont'd)

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LA1-30 (cont'd)	Sierrita will meet with to determine additional revegetation needs after the second growing season.
LA1-31	18. Page 4-125 indicates that ROW width justification should be required for encroachment into Pima County designated Important Riparian Area. Many of the recommended language and condition changes are intended to ensure that this is executed.
LA1-32	19. The District concurs with FERC's recommendations on page 4-149 and additionally recommends that the term PCRRH be added to the list of sensitive resources in item c. This is consistent with intent expressed elsewhere.
LA1-33	20. The maintenance plan is contradictory to revegetation efforts. Page 4-153 states that "Trees, cactus and shrubs" within the 50' ROW will be periodically cleared while a ten foot wide area over the pipe will be "maintained in a herbaceous state". What is the difference? Secondly, how does only allowing agave and grass match surrounding vegetation?
LA1-34	21. Access road improvements are to be removed at the discretion of the landowner, recontoured and reseeded. Reseeding is inadequate for vegetation recovery and disturbance of Pima County Regulated Riparian Habitat requires use of riparian species.
LA1-35	22. On page 4-175 in section 4.9.2 the District recommends including rock terraces to list of methods to be used to reduce unauthorized ROW access. The method will not only limit vehicular access it will help reduce gully formation and promote restoration of vegetation.
LA1-36	23. Section 4.14 of the DEIS identifies the cumulative permanent impacts including erosion, gully formation, subsidence and the lowering of the valley floor. This section also notes on page 4-228 that implementation of avoidance and mitigation provisions of the Pima County riparian habitat regulations will help minimize this permanent impact. We concur and recommend emphasizing the importance of riparian protection by addition of reference to PCRRH at the locations noted herein. Furthermore the County notes that waterbar, rock terrace or alternative slope treatment placement & design will further minimize gully formation.
LA1-37	24. The District recommends adding the following phrase to Section 4.14.4 on page 4-229. "While standing water wetlands as defined by the ACOE are not prevalent in Arizona as the state has lost over 90 percent of its surface water in the last century, Pima County has developed a riparian habitat classification system to identify all types prevalent in the arid Sonoran desert region. The importance of these habitats is widely acknowledged, restoration efforts are underway throughout the County and FERC has recommended special practices to protect these areas. Furthermore Sierrita is working with the County on identifying these areas, avoiding them and mitigating unavoidable impacts."
LA1-38	25. Add the term "local" to the second sentence of recommended Condition 7 on page 5-13 where federal and state agencies are mentioned. This is consistent with 7c as drafted.
LA1-39	26. As noted above in comment 2 above add the term "riparian habitat" to recommended Condition 12 on page 5-14.
LA1-40	27. In section 5.2 the following are recommended by the District a. Add the term "Pima County Regulated Riparian Habitat Important Riparian Area"

Sierrita Pipeline DEIS

Pima County Comments

Page 4 of 26

LA1-31	See response to comment FA2-3. Section 4.4.8.2 has also been updated to explain that Sierrita's right-of-way width and ATWS placement is due to setback, etc. requirements from the Pima County RFCD.
LA1-32	Pima County's comment regarding PCRRH is noted. Since issuance of the draft EIS, Sierrita provided information to address this recommendation, and section 4.8.1.1 has been updated accordingly.
LA1-33	See response to comment SA6-4.
LA1-34	Sierrita indicated it has discussed with the Pima County RFCD that the payment in lieu fee would be necessary as onsite mitigation, beyond seeding. This fee is reflected in Pima County's mitigation table contained in Pima County's most recent FERC comments. Sierrita committed to continuing consultations with the NRCS on the use of ESDs in the planning of revegetation and monitoring activities, including the composition of seed mixes. We recommended in section 4.4.8.2 of the final EIS that prior to construction Sierrita file revised versions of its <i>Reclamation Plan</i> and <i>Post-Construction Vegetation Monitoring Document</i> that identifies Sierrita's final seed mixes and rates developed in consultation with the NRCS and based on proposed seeding schedule(s).
LA1-35	As described in sections 4.0 and 5.0 of Sierrita's revised <i>Reclamation Plan</i> , Sierrita committed to using available rock to impede vehicular access along the right-of-way. Also see response to comment LA1-20.
LA1-36	Pima County's comment regarding PCRRH is noted. Section 4.14.3.2 has been updated to acknowledge erosion control devices to minimize gully formation.
LA1-37	Pima County's recommended text has been added to section 4.14.4 with modification.
LA1-38	While we acknowledge Pima County's recommended edit as helpful for clarification purposes, recommendation No. 7 is a standard condition that appears consistently and unedited in FERC NEPA documents.
LA1-39	Recommendation No. 12 listed in section 5.2 of the draft EIS has been addressed by Sierrita during the 45-day draft EIS comment period and is no longer necessary.
LA1-40	Recommendation Nos. 14 and 22 listed in section 5.2 of the draft EIS have been addressed by Sierrita during the 45-day draft EIS comment period and are no longer necessary.

Local Agency Comments

LA1 – Pima County, County Administrator's Office (cont'd)

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LA1-40 (cont'd)	and specifically include Brown Wash and Altar Wash as Condition 14.f. b. Recommended Condition 22 states that prior to close of the DEIS comment period Sierrita should submit a write up of revegetation measures including replanting. This write up should be able to include acknowledgement and description of the proposed PCRHMP and Conservation Plan.
LA1-41	28. The application and integration of the <i>Sierrita Upland Erosion Control, Revegetation and Maintenance Plan</i> , (Appendix D) and <i>Reclamation Plan</i> (Appendix F) is unclear. Both documents describe erosion control measures, and provide guidance for disturbed areas, but do not use consistent terms. For example, the terms 'slope breaker (appendix D and F)' and 'water bar' (Appendix F only) are used to describe features that describe erosion control on a slope. However, the substantive difference is unclear. While the <i>Reclamation Plan</i> applies to the permanent Right of Way, the 'trench breaker' term is used only in the <i>Upland Erosion Control, Revegetation and Maintenance Plan</i> , where it is used to describe erosion control measures in a trench, which is presumably in the permanent Right of Way.
LA1-42	29. Please provide a table listing the name, function, placement, construction materials and a sketch for each of the erosion control features described in the FEIS. If there is further description of the feature in the appendices, please provide the applicable pages. Some features described in the DEIS (e.g. J-hook p. 4-19, section 4.2.2) are not described in a substantive way.
LA1-43	30. In the document entitled <i>Sierrita Upland Erosion Control, Revegetation and Maintenance Plan</i> (Appendix D), and/or the <i>Reclamation Plan</i> (Appendix F), as appropriate, a section should be added to V.B Permanent Erosion Control Devices that describes Rock Terraces. The Rock Terrace is a side slope erosion protection method that allows for the impoundment of water within the ROW, which will reduce gully formation, enhance vegetation restoration, reduce unauthorized access, and may reduce channel lateral migration. The District recommends that these be utilized where waterbars cannot be terminated in a manner which will minimize gully formation beyond the ROW. Flows must be ponded at the end of a water bar to prevent the potential for off-site erosion. Functionally, these may be similar to the 'J-hook' mentioned on page 4-19 (section 4.2.2). At a minimum, the District observes that terminating a waterbar within erodible soil at the following locations promotes gully formation: a. Termination at a location where natural surface concentrates the released flows within a natural flowpath which is in equilibrium with its natural undisturbed upland area, or within a geographic feature which is not currently a significant flow path but will become one upon receiving flows from a waterbar; and b. Termination at a location where the natural surface gradient is greater than the longitudinal slope within the waterbar. Both terminations listed above must be avoided where the specified feature is located within a radial distance from the point of termination which is necessary for the released flows to decelerate and spread out without concentrating. This radial distance shall be 80 feet per acre of ROW tributary to the waterbar, or as otherwise determined through valid technical analysis approved by the District.

LA1-41

The terms "water bar" and "slope breaker" have the same meaning and are used interchangeably. Both are used to direct surface water from the disturbed construction area to an undisturbed area in a controlled manner. A "trench breaker" is a barrier in the ditch to prevent lateral erosion of the ditch fill material along the pipeline. A trench breaker is a non-permeable blockage in the trench extending from the bottom of the ditch to near the top of the ditch and made from sand bags or sprayed foam. Sierrita's Plan applies to all phases of the Project, including reclamation. Sierrita's *Reclamation Plan* is a specific plan relating to the reclamation of the all aspects of the Project, including the construction right-of-way, ATWS, contractor yards, and access roads.

LA1-42

Sierrita provided typical drawings of several of its proposed erosion control measures as part of Resource Report 1, appendix 1E, filed on February 7, 2013. The FERC does not require the submittal of detailed drawings that show the exact placement and method used to be to control erosion. Based on our knowledge and review of pipeline projects, we note that effective erosion control measures must be appropriate for the site based on current, site-specific conditions. Therefore, site-specific erosion control measures would be determined and approved by the EI during active construction and restoration, and consist of one or more of the temporary and permanent erosion control measures identified in Sierrita's Plan and Procedures.

Section 4.9.2 has been updated to identify Sierrita's proposed restoration measures and timing (see table 4.9.2-1).

Sierrita would apply for all necessary federal, state, and local permits prior to construction. FERC staff expects that information necessary by the Pima County RFCD to process Sierrita's permit application (in addition to that described in the EIS), such as detailed descriptions and drawings of erosion control features, would be requested of Sierrita by the permitting agency during the permitting process. Furthermore, Sierrita would be required to comply with any permit conditions or additional mitigation measures provided in the agency permit, to the extent that non-federal permits do not unreasonably delay, conflict with, or prevent implementation of federal requirements.

LA1-43

See response to comment LA1-20.

Note that regardless of the erosion control material or method adopted, Sierrita would be required to use, install, and maintain erosion control devices in a manner that reduces runoff velocity, diverts water off the construction right-of-way, and/or prevents the deposition of sediments beyond approved workspaces or into sensitive resources.

LA1 – Pima County, County Administrator's Office (cont'd)

161-Z

LA1-43
(cont'd)

At these locations a Rock Terrace should be used to impound the runoff from the inter-terrace disturbed area, preventing release from a rainfall event up to a 10-year rainfall event with additional volume to account for accumulation of silt. Per design, the Rock Terrace will eventually fill with sediment and support native vegetation. Initially, impounded runoff will leave the terrace via infiltration and evapotranspiration. Outflows will occur from the Rock Terrace during an event less frequent than the 10-year event, or from any event which occurs after the Rock Terrace has filled with sediment. Outflows are to be distributed within the ROW downstream of the Rock Terrace by overflow over the horizontal rock-lined crest of the terrace. Initial calculations suggest that the storage volume of the Rock Terrace approximate values in the following table, unless an alternative volume is determined through valid technical analysis.

Slope (percent)	Volume (ft ³ /acre)
5-10	2150
10-15	3940
15-20	6080
20-25	8590
25-30	11,460
30-35	14,690
35-40	18,290

In addition, minimum spacing requirement should apply similar to the other slope treatments.

Slope	Spacing
5-15 percent	300 feet
>15-30 percent	200 feet
>30 percent	100 feet

Finally, the downslope side should be armored with rock riprap to for slope stability and to prevent soil removal when overtopping of the rock terrace occurs.

Comments on the Appendices:

LA1-44 Appendix D – Items determined to be 'Acceptable' by FERC that Pima County Regional Flood Control Finds Unacceptable:

1. Table D-1-3 (Section IV A.1): Installed features must not have adverse impacts outside the Right of Way.

LA1-44

Comments on appendix D of the draft EIS, Sierrita's Plan:

1. Table D-1, page 3 and section IV.A.1 of Sierrita's Plan only serve to establish the approved area of ground disturbance, which is limited to the construction right-of-way, extra work spaces, pipe storage yards, borrow and disposal areas, access roads, and other areas approved in FERC's Orders. Per this section, Sierrita is not allowed to cause disturbances outside of these approved areas. However, "...this does not apply to the activities needed to comply with Sierrita's Plan and Procedures (i.e., slope breakers, energy-dissipating devices, dewatering structures) or minor field realignments and workspace shifts per landowner needs and requirements that do not affect other landowners or sensitive environmental resources areas." That is, per the Plan and Procedures, Sierrita is required to implement mitigation measures to minimize potential impacts outside of the authorized areas of disturbance. All construction or restoration activities outside of authorized areas are subject to all applicable survey and permit requirements, land-managing agency easement grants, and landowner easement agreements.
2. through 5. Other sensitive environmental resource areas include PCRRH based on the analysis in the EIS. In addition, Sierrita committed to maintaining an onsite hydrogeologist at dry wash crossings that would provide site recommendations for erosion control. Also, Sierrita's EIs would be responsible for identifying erosion/sediment control and soil stabilization needs in all areas, as discussed in Sierrita's Plan.
6. Table D-1, page 5 and section IV.F: As stated in this section, all spoil would be stored so as not to impede potential flow within the main channels of dry washes. Furthermore, as recommended in the draft EIS, Sierrita revised section V.B.4.a of its Procedures to clarify that all spoil must be placed in the construction right-of-way and outside of the main channels of dry washes. Sierrita's revised Procedures is included in appendix F of the final EIS.

LA1 – Pima County, County Administrator’s Office (cont’d)

Z-192

LA1-44
(cont'd)

2. Table D-1-6 (Section IV F.1.b [and Section V B.2.]): The table for temporary (and permanent) slope breakers are inappropriate for the following reasons:
 - a. Locations: Slope breakers and other features are necessary to protect Pima County Regulated Riparian Habitat (PCRRH), not just water bodies and road crossings.
 - b. Applicability to Slopes > 5 percent: In Pima County, we have noted rilling and erosion may occur on slopes shallower than 5 percent, and therefore shallower slopes should be mitigated.
 - c. Spacing: Spacing should be based on technical considerations found at the site including the lack of vegetation, highly erodible soils and intense rainfall events that occur in Pima County.
3. Table D-1-6 (Section IV F.3.b):
 - a. Locations: Sediment barriers and other features are necessary to protect Pima County Regulated Riparian Habitat (PCRRH), not just water bodies and road crossings.
 - b. Applicability to Slopes > 5 percent: In Pima County, we have noted drilling and erosion may occur on slopes shallower than 5 percent, and therefore shallower slopes should be mitigated.
4. Table D-1-6 (Section IV F.3.c):
 - a. Locations: Sediment barriers and other features are necessary to protect Pima County Regulated Riparian Habitat (PCRRH), not just water bodies and road crossings.
5. Table D-1-7 (Section V B.1.d):
 - a. Locations: Trench Breakers and other features are necessary to protect Pima County Regulated Riparian Habitat (PCRRH), not just water bodies and road crossings.
6. Table D-1-5 (Section IV.F):
 - a. Trench spoil should not be located in dry washes.

LA1-45 | Appendix E: Table E-1

1. II.A. Consider adding "or contain jurisdictional waters of the US"
2. II.B. The project will cross potential jurisdiction waters, revise to include consideration of these sensitive waterbodies.
3. III.A. Please ensure that the Environmental Inspectors have experience with arid lands waterbody conditions.
4. IV. A.1. Please consider adding Pima County Regulated Riparian Habitat (PCRRH).
5. IV. A. 1.e. Hazardous materials should not be stored in dry washes.
6. V.A.4. Crossing of dry washes should be applicable especially where they contain potential jurisdictional waters of the US.
7. V.B.2.a. Consider adding mapped riparian habitat and jurisdictional waters of the US to the list of sensitive areas listed.
8. V.B.2.b. Consider adding mapped riparian habitat and jurisdictional waters of the US to the list of sensitive areas listed.
9. V.B.2.c. Consider adding mapped riparian habitat and jurisdictional waters of the US to the list of sensitive areas listed.
10. V.B.3.b. Consider adding mapped riparian habitat and jurisdictional waters of the US to the list of sensitive areas listed.
11. V.B.3.c. The project does parallel dry washes with mapped riparian habitat and jurisdictional waters both along the pipeline right-of-way and along access roads, this part

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LA1-45

Note that the Procedures apply to waterbodies, which are defined as “natural or artificial stream, river, or drainage with perceptible flow at the time of crossing, and other permanent waterbodies such as ponds and lakes,” and wetlands, which the Project would not affect. Should the COE determine that any of the ephemeral washes crossed by the Project are jurisdictional waterbodies, this section would apply to those waterbodies. Sierrita anticipates COE feedback regarding its permit application in April 2014.

Through Sierrita’s Scour and Lateral Bank Migration Analysis developed in coordination with the Pima County RFCD, Sierrita determined required burial depth taking into consideration necessary depth below scour and potential lateral migration associated with 100-year storm events. Associated right-of-way width and ATWS at each waterbody crossing were developed on the basis of this analysis (see section 4.3.2.6 of the final EIS). Based on this information, Sierrita has demonstrated that it can minimize, but cannot reasonably avoid impacts, to all PCRRH. Sierrita committed to continuing consultations with the Pima County RFCD to finalize appropriate mitigation measures related to wash crossings and riparian habitat.

Additionally, Sierrita would need to obtain a section 401 state water quality certification and comply with all conditions of this authorization.

The Procedures state that the EIs must have knowledge of the wetland and waterbody conditions *in the Project area*, which means that they would be familiar with arid land waterbody conditions.

Sierrita revised its Procedures such that no hazardous materials would be stored in dry washes.

Furthermore, note that there are no wetlands crossed by the Project (see section 4.3.3) and, therefore, section VI.C.4 does not apply.

Local Agency Comments

LA1 – Pima County, County Administrator’s Office (cont’d)

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LA1-45
(cont'd)

- should apply to these circumstances.
12. V.B.3.d. The project does cross dry washes with mapped riparian habitat and jurisdictional waters both along the pipeline right-of-way and along access roads, this part should apply to these circumstances.
 13. V.B.3.f. Consider adding mapped riparian habitat and jurisdictional waters of the US to the list of sensitive areas listed.
 14. V.B.3.g. Consider adding mapped riparian habitat and jurisdictional waters of the US to the list of sensitive areas listed.
 15. V.B.4.b. Consider adding mapped riparian habitat and jurisdictional waters of the US to the list of sensitive areas listed.
 16. V.B.10. Consider adding mapped riparian habitat and jurisdictional waters of the US to the list of sensitive areas listed.
 17. V.B.10.a. Consider adding mapped riparian habitat and jurisdictional waters of the US to the list of sensitive areas listed. Additionally due to site conditions including highly erodible soils and intense rainfall on dry soils, site conditions dictate a greater frequency of BMB installation including consideration of shallower slopes and shorter continuous downslope lengths. Pima County Regional Flood Control District will work with Sierrita during the permitting process to refine erosion control measures within regulatory watercourses and recommendations for the entire disturbed area.
 18. V.B.10.b. Consider adding mapped riparian habitat and jurisdictional waters of the US to the list of sensitive areas listed.
 19. V.C.8. Should apply to all dry washes and may need to apply to shallower slopes within PCRFCF regulated areas.

Appendix E:

1. E-3: IV. A.1.e. No hazardous materials should be place in washes
2. E-5: V.B.2. and VI.B.1. Consider not locating extra work areas in Important Riparian Areas defined by Pima County.
3. E-6: V.B.3.e. and VII. C.3. Consider maintaining adequate water quality for aquatic life
4. E-9: VI. A.2. consider avoiding defined Important Riparian Areas to the maximum extent possible.
5. E-13: VI.C.4. Please add "local agencies" to develop a project-specific wetland restoration plan.

Additional Items of Concern outside the Realm of Pima County Jurisdiction:

LA1-46

1. **Jurisdictional Waters of the US:** Section 1.5, p 1-16 states that "because the Project would not affect wetlands, a nationwide permit is not required for the project." Our experience with jurisdictional delineations within the region differs from this opinion. Ephemeral washes have been shown to have a significant nexus to Traditionally Navigable Waters within the Santa Cruz River Watershed. If the COE were to have a matching opinion, significant revisions to the EIS will be required as stated by FERC in Section 2.3 on page 2-8. Some of the sections requiring revision will be section 4.3.2.4 Sensitive Waterbodies should be revised to include jurisdictional waters, Section 4.3.2.6 Waterbody Construction Procedures & Mitigation should be revised to include minimizing disturbance to jurisdictional waters including consideration of alternate construction methods at these crossing, 4.3.3 Wetlands should address not just wetlands but those areas regulated by the COE and Section 404 of the Clean Water Act,

LA1-46

See response to comment SA9-14.

LA1 – Pima County, County Administrator's Office (cont'd)

Z-194

LA1-46
(cont'd)

Appendix D and E Mitigation Plans should be amended to provide adequate protection/mitigation within jurisdictional waters. In general, if a nationwide permit will be required for the project, ephemeral washes with an OHWM greater than 43.5 feet as shown in Appendix Q will require a construction disturbance width less than 100 feet wide. Consideration of alternative methods will be required to minimize disturbance. Fill volumes will also need to be taken into account in order to qualify for nationwide permit coverage rather than obtaining an individual permit for the project.

LA1-47

2. **Water Quality Concerns:** Section 4.3.2.8 Hydrostatic Testing p.4-45 and Appendix M (page M-6) reference discharge of hydrostatic testing waters to stock tanks or depressed areas within dry washes. This activity may be subject to permitting by the Arizona Department of Environmental Quality, under the AZPDES De Minimus General Permit.

In conclusion Sierrita has submitted a FPUP application. The process involves identifying scour depth and ROW width as well as erosion control measures. It is not until this work is completed that the full impacts on PCRRH will be known and a RHMP can be completed. The comments above are intended to improve the success of reclamation efforts, to minimize off-site impacts and to protect the pipeline itself from erosion hazards by recommending changes and concurring with those recommendations made by FERC relating to the District's expertise and authority.

Department of Environmental Quality

The Pima County Department of Environmental Quality (PDEQ) has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed Sierrita Natural Gas Pipeline Project (Sierrita Pipeline Project). The Sierrita Pipeline Project DEIS, prepared by the Federal Energy Regulatory Commission (FERC), covers a variety of environmental issues associated with the proposed Sierrita Pipeline Project. The proposed Sierrita Pipeline Project would entail the construction and operation of approximately 60.5 miles of natural gas transmission pipeline in Pima County, Arizona. The DEIS evaluates the environmental impacts of the preferred alignment of the Sierrita Pipeline Project as well as other alternative alignments for the Sierrita Pipeline Project.

PDEQ comments in regard to the Sierrita Pipeline Project DEIS:

General Comments

- 1) Chapter 4: Environmental Analysis
 - Page 4-44 – 4.3.2.8 Hydrostatic Testing and Other Water Needs –
 - Page 4-61 – 4.4.8 – Vegetation Construction Impacts and Mitigation –
 - Page 4-122 4.7.1.5 – Pima Pineapple Cactus –
 - And Appendix I –Fugitive Dust Control Plan – Page1-3 –
- The contractor should not wait until emissions exceed 20 percent, or extend more than 300 feet from the dust source; before conducting fugitive dust abatement; dust control procedures should be used to prevent excess fugitive emissions, prevent fugitive emissions which exceed 20 percent opacity, and to prevent fugitive emissions from diffusing across the property boundary line within which the emissions become airborne.

LA1-48

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LA1-47

As noted in section 4.3.2.8, Sierrita would only discharge hydrostatic test water into livestock tanks if the water quality tests meet applicable water quality standards for the intended use (livestock use). In addition, Sierrita's *Hydrostatic Testing Best Management Practices Plan* (see appendix N of the final EIS) was prepared in accordance with the ADEQ Arizona Pollutant Discharge Elimination System General Permit No. AZG2010-001, De Minimis Discharge General Permit requirement for a Best Management Practices Plan.

LA1-48

Based on our experience of linear pipeline construction, where construction is limited to the area needed to install the buried pipeline, fugitive dust would leave the construction workspace areas. However, the quantity of fugitive dust emissions would vary based on several variables (equipment in a particular area, drought/rain conditions, etc.). Sierrita committed to implementing a *Fugitive Dust Control Plan* to help mitigate the formation of fugitive dust on this Project, which includes applying a water/magnesium chloride mixture as needed as a dust suppressant and pre-watering areas. Fugitive dust emissions would cease upon completion of pipeline construction. In addition, Sierrita would apply for all necessary federal, state, and local permits prior to construction.

Local Agency Comments

LA1 – Pima County, County Administrator’s Office (cont’d)

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- LA1-49 | 2) Page 4-159 – 4.8.2.1 Federal Lands – The DEIS states that “indirect effects could include... dust spreading outside the Project area and into the Buenos Aires National Wildlife Refuge (BANWR)..., and dust might also be experienced by passersby on Highway 286.” This is not acceptable. PCC Title 17 Section 17.16.050.D specifies that ‘no person shall cause, suffer, allow, or permit diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne, without taking reasonably necessary and feasible precautions to control generation of airborne particulate matter’. Therefore, fugitive dust emissions generated by the Sierrita Pipeline Project should not affect the BANWR or passersby on Highway 286.
- LA1-50 | 3) Page 4-164 – The DEIS states that ‘Construction would also generate dust and noise, which could be a nuisance to recreational user.’ The Sierrita Pipeline Project construction area should not be open to recreational users while construction is on-going, given the 100 foot wide right-of-way for construction, therefore, as PCC Title 17 prohibits fugitive dust from leaving the property boundary, recreational users outside the project boundary should not be affected by fugitive dust from the project.
- LA1-51 | 4) Page 4-201 – 4.12.1.1 – Air Quality Control Regions and Attainment Status – There are two areas of Pima County (Ajo, AZ and Rillito, AZ) that are designated non-attainment for particulate matter 10 micrometers or less (PM₁₀) according to the U.S. Environmental Protection Agency.
- LA1-52 | 5) Page 4-201 – 4.12.1.1 – Air Quality Monitoring – The DEIS does not appropriately report the air quality monitoring conducted in Pima County. PDEQ operates seventeen (17) air quality monitoring stations within Pima County to establish air quality trends for criteria pollutants. The DEIS presents partial data from two (2) of the air quality monitoring stations. In order to show representative data for the Sierrita Pipeline Project area the DEIS should present data for all criteria pollutants at more than two sites.
- LA1-53 | 6) Page 4-201 – 4.12.1.1 – Air Quality Monitoring – The DEIS does not specify why the data presented are considered ‘most representative’ for the proposed Sierrita Pipeline Project. The data presented as ‘most representative’ does not contain particulate matter or ozone data for the Tucson area.
- LA1-54 | 7) Page 4-201 – 4.12.1.1 – Air Quality Monitoring – The DEIS fails to document where the data presented in Table 4.12.1-3 – Ambient Air Quality Monitoring Data for the Sierrita Pipeline Project were obtained.
- LA1-55 | 8) Page 4-202 – 4.12.1.2 – Regulatory Requirements – Federal Regulations Section - Air emissions are regulated in Pima County by PDEQ. Pima County has statutory authority pursuant to Arizona Revised Statute 49-402 and 49-479 for air quality regulations within Pima County.
- LA1-56 | 9) Page 4-202 – 4.12.1.2 – Regulatory Requirements – State Regulations Section – This section should be titled State and Local Regulations as PDEQ has statutory authority for air regulations.

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LA1-49 | See response to comment LA1-48.

LA1-50 | See response to comment LA1-48.

LA1-51 | Ajo and Rillito, Arizona are nonattainment for PM₁₀; however, the proposed route does not cross either of these nonattainment areas. Section 4.12.1.1 has been updated to include the Ajo and Rillito nonattainment areas.

LA1-52 | The data presented in section 4.12.1.1 are representative of the monitoring stations nearest to and most reflective of the Project area.

LA1-53 | The Green Valley station is about 22 miles from the Project and was used to obtain measurement data for particulate matter and ozone. However, the Green Valley station does not provide measurement data for the other pollutants and, therefore, measurement data from the Tucson station, the next nearest station to the Project, were used.

LA1-54 | As listed at the bottom of table 4.12.1-3 and included in the References appendix, the source for the data is: U.S. Environmental Protection Agency. 2012g. AirData Monitor Values Report – Criteria Air Pollutants. Monitoring Data from the EPA AirData Database. <http://www.epa.gov/airdata/> Accessed August 2012.

LA1-55 | Pima County DEQ’s comments are noted. Section 4.12.1.2 has been updated for clarification.

LA1-56 | Pima County DEQ’s comments are noted. Section 4.12.1.2 has been updated for clarification.

Local Agency Comments

LA1 – Pima County, County Administrator’s Office (cont’d)

Z-196

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| LA1-57 | 10) Page 4-202 – 4.12.1.2 – Regulatory Requirements – State Regulations Section – Pima County implements air quality regulations within Pima County under independent statutory authority pursuant to Arizona Revised Statutes 49-402 and 49-479. |
| LA1-58 | 11) Page 4-202 – 4.12.1.2 – Regulatory Requirements – State Regulations Section – A PDEQ

Fugitive Dust Activity Permit is also required when conducting blasting according to Pima County Code (PCC) Title 17 section 17.12.470. |
| LA1-59 | 12) Page 4-202 – 4.12.1.2 – Regulatory Requirements – State Regulations Section – PCC
Title 17 requires the use of reasonable control measures to control visible emissions including but not limited to fugitive dust emissions. The control of fugitive dust emissions is not limited to the reduction of the opacity of the emissions. For example: PCC Title 17.16.050.D specifies that 'no person shall cause, suffer, allow, or permit diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne, without taking reasonably necessary and feasible precautions to control generation of airborne particulate matter'. Therefore, fugitive dust emissions generated by vehicles and equipment should be controlled such that residents in the vicinity are not affected by fugitive emissions. |
| LA1-60 | 13) Page 4-203 – 4.12.1.2 – Regulatory Requirements – State Regulations Section – The Sierrita Pipeline Project should also comply with Pima County regulations (PCC Title 17) for controlling visible emissions, including fugitive dust. |
| LA1-61 | 14) Page 4-203 – 4.12.1.2 – Regulatory Requirements – State Regulations Section – The DEIS specifies that a final version of the Fugitive dust Control Plan will be filed, but does not specify which agencies will receive a copy of the plan. |
| LA1-62 | 15) Page 4-204 – 4.12.1.3 – Construction Impacts and Mitigation – Dust generated by vehicles and equipment traveling to and from the right-of-way along unpaved roadways should also be minimized by use of dust suppressants (i.e. water, or chemical stabilizer). |
| LA1-63 | 16) Page 4-205 – 4.12.1.4 – Operation Impacts – Dust control methods should be implemented when the project requires use of existing road for right-of-way inspections. Residents near the road should not experience elevated dust levels, as fugitive emissions should remain within the property boundary in which the emissions are generated. |
| LA1-64 | 17) Page 4-236 – 4.14.12 – Air Quality and Noise – Air quality data used for the DEIS are incomplete. The DEIS relies on data from only two (2) air quality monitoring stations, and does not present criteria pollutant data for the Tucson area. The DEIS states that 'the available data at the Tucson monitoring site...and the Green Valley station demonstrates that the air quality has been improving in the area since monitoring was started.' However, the DEIS does not present any historic data to support this, nor does it present all criteria pollutant data for the Tucson area. The DEIS needs to present data for the Tucson area as well as demonstrate where the data originate, and why the data are considered representative for the Sierrita Pipeline Project. |

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| LA1-57 | Pima County DEQ’s comments are noted. Section 4.12.1.2 has been updated for clarification. |
| LA1-58 | See response to comment LA1-48. |
| LA1-59 | See response to comment LA1-48. |
| LA1-60 | See response to comment LA1-48. |
| LA1-61 | See response to comment LA1-48. FERC staff expects Sierrita to file a final copy of the <i>Fugitive Dust Control Plan</i> prior to construction as part of its Implementation Plan. In addition to any plans filed directly with the agency as part of Sierrita’s permit application, the Implementation Plan would be available for viewing on the FERC website (www.ferc.gov) under Docket Nos. CP13-73 and CP13-74. |
| LA1-62 | Sierrita’s measures used to minimize dust are identified in its <i>Fugitive Dust Control Plan</i> . |
| LA1-63 | Sierrita’s measures used to minimize dust are identified in its <i>Fugitive Dust Control Plan</i> . |
| LA1-64 | See response to comment LA1-52. |

LA1 – Pima County, County Administrator’s Office (cont’d)

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- LA1-65 | 18) Appendix I – Draft Fugitive Dust Control Plan – Page I-1 – Section 1.2 – The Sierrita Pipeline Project contractor is responsible for taking reasonable control measures ensure compliance with applicable fugitive dust regulations.
- LA1-66 | 19) Appendix I – Draft Fugitive Dust Control Plan – Page I-2 – Section 3.0: Applicable Regulatory Requirements – Pima County does not have an agreement with the Arizona Department of Environmental Quality (ADEQ) for air quality regulations. Pima County has statutory authority pursuant to Arizona Revised Statute 49-402 (A.R.S. 49-112).
- LA1-67 | 20) Appendix I – Draft Fugitive Dust Control Plan – Page I-3 – Section 4.0: Fugitive Dust Abatement – The contractor should not wait until emissions exceed 20 percent, or extend more than 300 feet from the dust source; before conducting fugitive dust abatement; dust control procedures should be used to prevent excess fugitive emissions, prevent fugitive emissions which exceed 20 percent opacity, and to prevent fugitive emissions from diffusing across the property boundary line within which the emissions become airborne.

Regional Wastewater Reclamation Department

- LA1-68 | The segment of the proposed gas pipeline that crosses Snyder Hill Road east of the Avra Valley Wastewater Facility may impact the exiting 24-inch public sewer line (C-79-B) located within the Snyder Hill Road right-of-way from the facility to the point in which two lines intersect to go north. Any utility crossing conflict that may occur during the construction of the pipeline shall be avoided if at all possible.

Cultural and Historic Resources Department

General Cultural Resources Comments: Volume I

While cultural resources issues may not be the primary drivers of the DEIS, a review of the document for compliance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA) indicate the DEIS contains inadequate documentation of cultural resources compliance requirements and processes. Discussions, when provided, are consistently too brief and insufficiently descriptive to be useful. In addition, the DEIS is incomplete, lacking basic elements regarding the treatment of Direct, Indirect, and Cumulative Effects on Historic Properties within the proposed route. Section 106 of the NHPA is discussed, but the cultural resources requirements of NEPA are ignored. There is no discussion of critical compliance components, including a required Historic Properties Treatment Plan, Discovery and Monitoring Plans, an agreement document, such as an MOA or PA, to be signed by Project Proponent, Lead Agency, Regulatory Agencies, and Project Stakeholders to provide structure and guidance for planning and implementing mitigation of Adverse Effect. There is no discussion of archaeological monitoring of ground-disturbing construction.

Specific Cultural Resources Comments: Volume I

- LA1-69 | 1.5, p. 1-16, Table 1.5-1

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- LA1-65 | See response to comment LA1-48.
- LA1-66 | Pima County DEQ’s comment regarding statutory authority is noted. See response to comment LA1-61.
- LA1-67 | See response to comment LA1-48.
- LA1-68 | As discussed in sections 2.3.2.4, 4.1.2, and 4.13.2, Sierrita would participate in the Arizona One-Call system (Arizona Blue Stake) that maintains contact information on the location of utilities, such as water, cable, natural gas, and sewer lines so that buried utilities could be identified and flagged before ground-disturbing activities. Where the pipeline is installed near a buried utility, Sierrita would maintain at least 12 inches of clearance from any other underground structure not associated with the pipeline, as required by 49 CFR 192.325. If this clearance could not be attained, Sierrita would install additional precautions to protect the pipeline from damage that might result from the proximity of the other structure.
- LA1-69 | Based on our discussions with the BANWR and as discussed in section 4.8.2.1, it is noted that several proposed access roads owned by the FWS are leased to the State of Arizona, Pima County, and/or local landowners for their use. Sierrita would apply for all necessary federal, state, and local permits prior to construction.

Local Agency Comments

LA1 – Pima County, County Administrator's Office (cont'd)

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LA1-69 (cont'd)	Permits and regulatory approvals are discussed. Some access roads are recognized as Pima County maintained, and subject to County right of way encroachment permitting requirements to conduct planned modifications. Pima County right of way permits include a cultural resources requirement that must be met. It is not accurate to state that only BANWR has all authority to give permissions for right of way use. Some roads in the area extending into BANWR are maintained by Pima County and within County jurisdiction. The issue of jurisdiction should be clarified and the access roads under County jurisdiction that are subject to permitting requirements should be confirmed before any proposed modifications and/or use can occur.
LA1-70	2.2.4 Access roads, Table 2.2.4-1 includes access roads in BANWR that need to have the correct jurisdiction confirmed, as mentioned above.
LA1-71	2.3.1-3 Trenching section, the discussion mentions blasting. Pima County blasting permit may be required and should be confirmed before construction.
LA1-72	3.5.1; 3.5.2 Alternative Routes Analysis: Only the proposed route considers cultural resources. None of the Alternative Routes mention cultural resources compliance requirements. There is no discussion of recorded cultural resources and the potential effects of Alternative Routes on them.
LA1-73	3.6 Route Variations are defined as localized route realignments to avoid impacting specific features or resources, including mentioning cultural resources. Presumably, these variations remain within the 300-foot survey corridor of the proposed route, but this is not stated in the document.
LA1-74	4.11 Cultural resources discussion cites Section 106 requirements, and notes federal regulations pertaining to FERC; guidelines for reports or investigations for pipeline projects, 18 CFR 380.12(f). Discussion does not include NHPA implementing regulations, 36 CFR 800.
LA1-75	4.11.1 Cultural Resources surveys described only briefly. 300-foot corridor surveyed on the proposed route and alternatives; 50-foot corridor on access roads; survey of entire footprint of construction yards and staging areas.
LA1-76	4.11.2 Tribal Consultation relies on a table to convey the consultation process and list the consulted Tribes. An accompanying narrative description of the consultation process with the Tribes, including the regulatory requirements, and which Tribes were consulted and why they were consulted, would benefit this section.
LA1-77	4.11.3 Unanticipated Discovery Plan. This discussion is too brief and does little to explain the purpose of the plan and under what circumstances it would be implemented. Again, including the regulatory requirements and the process of implementation would be helpful.

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LA1-70	See response to comment LA1-69.
LA1-71	Sierrita would apply for all necessary federal, state, and local permits prior to construction.
LA1-72	Section 3.5.1 discusses the results of cultural resources surveys along the East Route Alternative. Should any of the other route alternatives be determined to meet the Project objectives and be recommended by FERC staff, Sierrita would be required to conduct cultural resources surveys to identify sites and potential impacts. The alternatives discussed in section 3.5 that do not meet the Project objectives do not warrant a full scale cultural survey and analysis.
LA1-73	Sierrita conducted field surveys on route variations adopted into its proposed route.
LA1-74	The reference to 36 CFR 800.2(a)(3), the ACHP's regulations for implementing section 106, was included in section 4.11 of the draft EIS.
LA1-75	We disagree. The summary of cultural resources surveys and results provided in the EIS are sufficient and accurate. Due to the privileged and confidential nature of archaeological sites, further descriptions are not included.
LA1-76	We disagree. The information provided in table 4.11.2-1 provides a thorough summary of the consultations with federally recognized Indian tribes for the Project.
LA1-77	See response to comment PM1-49.

Local Agency Comments

LA1 – Pima County, County Administrator's Office (cont'd)

Z-199

LA1-78	4.11.4	<p>NHPA compliance description is too brief, listing but not explaining the pre-construction requirements that Sierrita must file with the Secretary before the project can be constructed. The section makes general reference to "all evaluation reports and treatment plans" without defining these documents and their respective roles in the compliance process. The section does not mention any formal agreement document necessary to provide structure to required compliance actions and guidance for how they will proceed, such as a <u>Memorandum of Agreement or Programmatic Agreement</u> between the project stakeholders: Proponents, lead agency, regulatory agencies, cooperating agencies, Tribes, and other interested parties. <u>The DEIS does not discuss the implementation of the treatment plan, or what regulatory guidance such implementation would require.</u></p> <p>This section, indeed the entire DEIS, discusses only Section 106 of the NHPA and fails to account for the distinctions between cultural resources requirements of NHPA and NEPA, even though the DEIS is required by NEPA. The Section 106 discussions fails to account for differences in the ways cultural resources are treated in NHPA and NEPA.</p>
LA1-79	4.14	<p>Cumulative Impacts: This section provides a very brief discussion of impacts, but does not address cumulative impacts.</p>
LA1-80	4.14.1, p. 4-235: <u>This section fails to describe cumulative effects;</u>	<p>it only defines the cumulative impacts "region of influence ...as the area immediately surrounding the proposed pipeline route..." (the area of potential effects for cumulative impacts), but does not actually address cumulative effects. Instead, it states that estimates of cumulative effects are not possible because of lack of survey data. The discussion cites Pima County's Sonoran Desert Conservation Plan, A Vision for Cultural Resources (2009) to estimate the number of recorded sites in Pima County (n>3,900), with only 12 percent survey of the land base. This is an outdated source. FERC's consultant could easily obtain the up-to-date figures with a data request to AzSite. The section does acknowledge long-term impacts, but gives this issue only a single sentence.</p>
LA1-81	4.14.9.2	<p>Visual Resources: the summary discussion is too brief. The images in Appendix V help, but more discussion of visual effect would be useful.</p>
LA1-82	5.1.11, p. 5-9	<p>Cultural Resources: Provides a brief summary of Class III inventory results of surveys of proposed route and re-routes, and route variations, to avoid cultural resources. Cultural resources information is scattered in separate sections, presenting a challenge to identifying basic information like the survey results, inventory of recorded sites, and eligibility status of recorded sites. For example Section 5.1.11 provides a summary: 45 recorded sites, of which 31 are recommended eligible to the National Register of Historic Places. SHPO has concurred with this recommendation. All but three of these sites will be avoided by the proposed route, by re-routing or route variations. The three sites that cannot be avoided will be adversely affected and will require mitigation of the impacts. Additional discussion is presented in Section 4.11.1, p. 4-190, which presents a list of cultural resources survey reports submitted thus far. This section also identifies</p>
Sierrita Pipeline DEIS		<p>Pima County Comments</p> <p>Page 14 of 28</p>

LA1-78

The FERC's procedures for implementing NEPA take into account the requirements of section 106 of the NHPA. As discussed in section 4.11.4, all evaluation reports and treatment plans are required to be filed before Sierrita would begin construction. Despite the fact that Sierrita would receive its Order prior to construction (if the Project is approved), the FERC would be required to fulfill its obligations under section 106. The FERC is continuing its consultations regarding Project impacts on cultural resources and, if determined to be necessary, would develop and execute a Memorandum of Agreement.

LA1-79

See response to comment NAT4-3.

LA1-80

Section 4.14.11 includes discussions of the potential for future and ongoing activities (e.g., grazing and ranching, recreational activities, vandalism) to affect previously unidentified cultural resources, as well as past disturbances that may have affected cultural resources. Further, section 4.14.11 acknowledges that there is a potential for cumulative impacts on cultural resources; however, because the projects defined as federal actions would require mitigation measures to avoid or minimize additional impacts on cultural resources, and non-federal actions would need to comply with any state or county mitigation requirements, the potential for cumulative impacts on cultural resources would be reduced.

LA1-81

Section 4.8.5 addresses more detail on the Project-related impacts on visual resources.

LA1-82

The sections referenced in this comment are in the Conclusions and Recommendations chapter of the EIS, which is intended to provide a summary of the anticipated Project impacts and our conclusions. Section 4.11 includes our complete analysis of cultural resources that would be affected by the Project.

Cultural resources reports have been provided by Sierrita to consulting parties with qualified personnel including, but not limited to, the Arizona SHPO; Pima County/Pima County Office of Sustainability and Conservation, Cultural Resources and Historic Preservation Division; and federally recognized Indian tribes in the Project area.

Section 4.11.1 has been updated to include additional discussion of Sierrita's HPTP. All cultural resources treatment and mitigation plans would be developed in consultation with appropriate consulting parties.

Section 4.14.11 includes our analysis of potential cumulative impacts on cultural resources.

Mitigation measures identified in tables D-1 and E-1 would occur within the area surveyed by Sierrita for cultural resources and area of potential effect for the Project.

As discussed in section 1.5, the FERC, as the lead agency, is required to consult with cooperating agencies and the appropriate SHPOs regarding the NRHP eligibility of cultural resources and the potential effects of the proposed undertaking to those NRHP-listed or -eligible cultural resources.

Local Agency Comments

LA1 – Pima County, County Administrator’s Office (cont’d)

Z-200

LA1-82
(cont’d)

land ownership of recorded sites. The DEIS should present a combined cultural resources discussion somewhere to be sure all information is in a single place.

The section mentions that a Historic Properties Treatment Plan (HPTP) has not been prepared, but does not expand this important topic beyond stating that it is required before construction can begin. The mitigation and compliance process should be outlined in the DEIS, to establish a meaningful frame of reference for how Adversely Affected Historic Properties will be treated. There is no discussion of how the mitigation will be planned and implemented, and what review process will be followed to ensure that both NEPA and Section 106 requirements are met.

5.1.11, p. 5-11

FERC recommends that construction should not begin until requirements of Section 106, National Historic Preservation Act (NHPA) of 1966 are met, including survey to identify affected cultural resources, survey reports, treatment plans reviewed by “appropriate parties” and a written Notice To Proceed is issued by FERC.

The discussion is in summary form and too brief. The term “appropriate parties” should be defined. The DEIS is prepared under the requirements of NEPA, but cultural resources are discussed only within the context of Section 106 requirements. No mention is made of cultural resources requirements under NEPA, nor is there an attempt to identify the differences in the ways Section 106 and NEPA deal with cultural resources.

5.1.14

Cumulative Effect is briefly discussed. There should be a more substantive discussion. This section does not address cumulative effects on cultural resources.

5.2

FERC Mitigation Recommendations summary discussion. Cultural resources briefly discussed. Refers to Appendices, Tables D-1 and E-1, which have FERC comments on mitigation recommendations. Cultural resources review agencies under Section 106 are given in clause no. 23 (p.5-16). Does not mention agreement between stakeholders to guide how mitigation will be planned and implemented. Does not mention the consultation process with cooperators, stakeholders, regulatory agencies, or with Tribes.

Sheriff’s Department

LA1-83

The Pima County Sheriff’s Department acknowledges that the amount of illegal activity at or near border crossings is dependent on many variables that are not directly measureable. That does not negate the fact that this new pipeline could provide an additional pathway for use by smugglers. A majority of the quality of life issues, i.e. burglaries, larcenies, that the Sheriff’s Department sees in the Altar Valley are directly related to human and/or drug smuggling. Calls for service in the Altar Valley area have already increased by almost 200 calls for the time period 10/14/12 – 10/14/13 from the previous time period.

At the time of the initial proposal, the Sheriff’s Department staffed two full time Border Crimes Units. In June 2013, that was reduced to one Border Interdiction Unit comprised of one sergeant, 6 deputies and two Border Patrol agents.

LA1-83

Pima County Sheriff Department’s comments regarding illegal activity, estimated costs to the department, and migrant deaths are noted. Sections 4.10.3 and 4.9.1 have been updated to include this new and additional information.

LA1 – Pima County, County Administrator's Office (cont'd)

Z-201

LA1-83
(cont'd)

In order to prepare for this potential increase in criminal activity, the Sheriff's Department stands by its original proposal of \$461,436.00 annually for four additional deputies – one deputy per each shift to cover a 24 hour period in the Altar Valley area, conducting routine patrols and responding to calls for service. We would like to change our Initial One Time cost proposal to be for only four, 4x4 Patrol Tahoes at a cost of \$60,000 each for a total of \$240,000. We no longer are requesting the All-Terrain Off-Road Vehicles.

Although, according to the DEIS, the United States Border Patrol (USBP) has indicated that they have sufficient resources to respond to any illegal activity potentially induced by the project. It is important to note that the USBP is not a police force and does not respond to homicides, burglaries, traffic accidents, or any other 911 calls in the Altar Valley.

The number of migrant deaths for the time period January- September 2013 (152) has already surpassed the number of deaths recorded from January – September 2012 (128). Those numbers are sure to increase in the Altar Valley area once this new pathway through the desert is available. Recovering these bodies, and handling any ensuing investigation, is the job of the Pima County Sheriff's Department, and not that of the USBP. FERC has not adequately disclosed or addressed these impacts in the DEIS, and FERC needs to consider these impacts to local government in its analyses.

Department of Transportation

Having reviewed the DEIS for the Sierrita Gas Pipeline, our department offers the following comments:

LA1-84

1. Page 1-18, Table 1.5-1 of the DEIS:
 - Lists AZPDES De Minimus Discharge GP for the hydrostatic testing waters released to the WUS; however, there is no De Minimus permit application or plan provided or discussed in the DEIS.
 - Same list does not show the AZPDES CGP – Construction General Permit (Permit No. AZG2013-001) although a SWPPP for construction activities is provided in Appendix O.
 - No mention of need for APP permit. Generally, a Type 1 APP permit is **ALSO** required for approved non-stormwater discharges under AZPDES. Having reviewed the DEIS for the Sierrita Gas Pipeline, our department offers the following comments:

LA1-85

2. It is not clear if any of the 207 washes are impaired or outstanding Arizona waters that require ADQ to perform a review of the SWPPP. See AZPDES Section 1.5

LA1-86

3. The SWPPP plan does not meet the AZPDES permit requirement for SWPPPs. See AZPDES Section 6.3

LA1-87

4. Pages O-3 and O-4 mention straw bales. Are straw bales considered an approved BMP under AZPDES?

LA1-88

5. Section 5 of the SWPPP does not outline the current AZPDES inspection practices accurately (see AZPDES Section 4.2). The inspection checklist must be the ADEQ approved form and not the one provided.

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LA1-84

The Pima County Department of Transportation's comment regarding additional state and county permits is noted. As stated in section 4.10.4, Sierrita would coordinate with state and local departments of transportation and land-managing agencies to obtain the required permits to operate trucks on public roads. Table 1.5-1 provides a list of the *major* permits, approvals, and consultations for the Project. Sierrita would be responsible for applying for all permits and approvals required to construct and operate the Project, regardless of whether or not they appear in this table.

LA1-85

As discussed in section 4.3.2.4, no identified section 303(d) impaired waterbodies are located within the Project area.

LA1-86

Per Sierrita's consultations with ADEQ Stormwater and General Permits Unit, the oil and gas exemption (as established by the Energy Policy Act of 2005) applies to NPDES construction stormwater programs, and therefore oil and gas construction activities are conditionally exempt from permitting under AZG2013-001. A Stormwater Pollution Prevention Plan is not required. However, mitigation measures have been incorporated into Sierrita's Plan and Procedures that are generally consistent with stormwater programs.

LA1-87

See response to comment LA1-86.

LA1-88

See response to comment LA1-86.

Local Agency Comments

LA1 – Pima County, County Administrator's Office (cont'd)

- | | |
|--------|--|
| LA1-89 | 6. The SWPPP mentions topsoil (Page O-2) will be removed and placed outside ROW. Should these acres of impacts be included in the clearance document based on the discussion (Section 5.1.8, 1st paragraph) of placement of woody vegetation areas should be included and cleared for biological, cultural, sensitive resources, and landowners as well? |
| LA1-90 | <p>7. Of the identified access routes, there appear to be only eleven that fall within a County right-of-way. (See attached Exhibit)</p> <p>8. The usage and possible widening of the eleven routes would require a right-of-way permit which would insure that modifications to the right-of-way would be to the approval of the Department of Transportation and all costs for those modifications would be captured within the permit fee.</p> <p>9. It is unclear from the report as to whether any of the construction equipment using the access roads will exceed 80,000lbs which would require an oversize/overweight permit. The oversize/overweight fee is a nominal fee and does not compensate for any perceived additional wear and tear of the roadway surface.</p> <p>10. Although there may be more wear and tear of these access roads caused by construction equipment, recovery of additional maintenance cost would be difficult at best given that the access roads are for the public without any restrictions on usage.</p> |

Natural Resources, Parks, and Recreation

While the document contains the normal baseline information on Project background, strategies, techniques and methodologies one would expect, unfortunately, the document seems slanted towards down playing the potential significance of environmental impacts and does not address or adequately document the complexity of the cumulative effects the project will have on the local environment. Secondly, even after numerous field trips, public meeting testimony and written comment documents, the report continues to show the same weaknesses in important ecological analysis and flawed mitigation approaches pointed out previously to EPNG and the FERC team members. If in fact the function of the document is as FERC says, "The purpose of this document is to inform the public and the permitting agencies about potential adverse and beneficial environmental impacts of the Project and its alternatives, and to recommend mitigation measures that would avoid or reduce adverse impacts." This document does not adequately fulfill that stated function.

The Executive Summary under Project Impacts and Mitigation states that "...completion of the Project *could* result in numerous impacts on the environment." Then over the next six pages of the summary FERC identifies project related impacts and attempts to identify measures to mitigate the impacts. At one point in the Executive Summary the statement is made that impacts "...would range from short to permanent." There is no question that the Project *will* result in impacts. Granted some may be short-term, but others could potentially be significantly longer, even into decade's if ever, in spite of the mitigation measures described.

LA1-89 Sierrita's proposed construction right-of-way includes the area for topsoil and spoil storage and, therefore, the impacts on land uses, vegetation, soils, etc. include the area required for topsoil placement. Figure 2.2.1-1 shows Sierrita's typical right-of-way configuration and the placement area for topsoil within the construction right-of-way. All areas impacted by placement of woody vegetation have been included in all required surveys.

LA1-90 As stated in section 4.10.4, Sierrita would coordinate with state and local departments of transportation and land-managing agencies to obtain the required permits to operate trucks on public roads. If damages occur as a direct result of Project-related activities, Sierrita would repair them as appropriate and in accordance with the applicable permit. Following construction, temporary access roads would be restored to pre-construction condition or better unless otherwise requested by the landowner or land-managing agency.

LA1 – Pima County, County Administrator's Office (cont'd)

Z-203

LA1-91 In a number of places the report acknowledges that final documents and analysis are not available for review as part of the Draft EIS. This information gap does not allow reviewers the full Project detail to evaluate and/or comment on before a final EIS is completed. This seems counter to the spirit and language of the National Environmental Policy Act? Looking at the overall document it appears that the project review is being condensed in scope, depth and time to meet the desires of the applicant's construction timeline rather than a full analysis of the diverse environmental impacts. Many, many comments have been made along the way that this Project requires site specific analysis and then site specific mitigation criteria. This level of detailed information is still missing.

LA1-92 Back in October of 2012, the County provided a detailed set of scoping comments on the Project to FERC and copies to EPNG for use by their contractors in the finalization of Resource reports that are the basis of the EIS analysis and mitigation measures. A significant number of comments in that county document do not seem to be acknowledged or addressed in the Draft EIS? Further analysis of the Draft EIS points out other cases where comments provided have gone unanswered. Statements are made in the Draft EIS that have been consistently discredited or shown to be inaccurate for the context of the project route in this environment and border region. These consistent comments have been provided by local jurisdictions, local landowners, subject matter experts in the area, local Native American tribal programs and other interested parties. It is especially frustrating that FERC and EPNG would hold a public discussion session to get feedback on the project resource reports earlier in the EIS development process then not even record or document the comments provided by a very diverse and technically qualified audience. As a result, it probably would not be inappropriate to include all of those county comments back into the record of the Draft EIS so that FERC can assure that they are addressed in the final documents.

LA1-93 One of the most critical foundational flaws in the Draft EIS is the continuing lack of specificity necessary to truly evaluate impacts in the Project to be constructed in Arizona's Altar Valley. Consistently in the document, analysis and mitigation measures are not fitted to the site and social conditions in this unique part of the county ecologically and an area that lies along a challenged International border. As a result, assumptions and statements continue to be made in the document that do not fit the actual conditions and are not probable or suited for this environment. I am afraid that some of the generic boiler plate mitigation strategies, methods, and detail that was in the Resource reports are still driving thinking in the Draft EIS. This is especially clear in the sections on Environmental Analysis, Maintenance, Transboundary Effects and Mitigation.

LA1-94 The potential for the successful revegetation along the full length of the Project area is of some scientific debate. However, most experts agree the probability of a successful outcome is significantly challenged. The Draft ESI does not adequately acknowledge that the planned mitigation strategies may not work and offer no comprehensive follow up alternatives. There is a clear lack of documentation in the scientific literature to support the methods documented in the Draft EIS as having even a small potential of having as an outcome a successful pipeline restoration effort. Most projects seen in southern and central Arizona are ecological failures and do not meet the standards of recovery set for the projects even decades later. As FERC says in the document, "We have reviewed the *Post-Construction Vegetative Monitoring Document* ... and find that adherence to the measures in the plan, with the additional of recommendations above, would promote the restoration and revegetation goals intended for the Project right-of-way." One would think revegetation outcomes should be more focused on detailed metrics and measures of actual success than just to "promote" restoration.

LA1-91

See responses to comments PM1-3 and NAT4-3.

LA1-92

All substantive stakeholder comments received prior to the issuance of the draft EIS were included in our analysis. Non-typical comments may be preceded by "we received comments on," whereas more general comments are discussed within the body of the document in conjunction with our normal evaluation of the resources.

Notes from FERC staff's meeting on Sierrita's restoration methods in June 2013 were placed into the record for further comment.

While we have reviewed Sierrita's construction and restoration plans and find them acceptable to reduce Project-related impacts identified in the EIS, we note that permitting agencies and private landowners may wish to have additional restoration and mitigation measures implemented on their property. As discussed in section 4.8.2.3, Sierrita would secure easements to convey both temporary (for construction) and permanent (for operation) rights-of-way on private lands. Landowners have the opportunity to request that site-specific factors and/or development plans for their property be considered during easement negotiations, and that specific measures be taken into account.

The final EIS includes additional information provided by Sierrita and the cooperating agencies, as well as new or revised information based on substantive comments on the draft EIS.

LA1-93

We disagree that the Project analysis is not fitted to the site and social conditions of the Altar Valley.

Also see response to comment NAT4-3.

The FERC also cooperated with agencies to understand the unique issues and resources that could be impacted by the Project. The FERC has extensive knowledge of pipeline construction and mitigation measures used to reduce impacts.

LA1-94

The FERC acknowledges and discloses the challenges associated with revegetation and restoration efforts in desert communities, particularly for the Sonoran Desertscrub community found in the northern half of the Project area, and the Mogollon Chaparral Scrubland found in the southern end of the Project area. The FERC discloses that impacts on vegetation in these communities would be long-term to permanent due to the time required to reestablish the vegetation characteristics of these community types (an average of at least 76 years) (see section 4.4.8). However, as also described in section 4.4.8, revegetation success varies considerably and is dependent on a number of factors. Studies have also shown that revegetation recovery times appear to be reduced where roots and seeds are not entirely removed, where soils are not compacted, where disturbed sites were colonized by early successional communities, where fertile island microsites were established, through direct plantings of seedlings, gully control, soil amendments, plant protection, and pitting. Sierrita prepared and revised its plans based on consultations with federal, state, and local agencies, landowners, and local community groups, to include many of these measures in an effort to promote revegetation sooner than the 76-year timeframe described.

LA1 – Pima County, County Administrator’s Office (cont’d)

Z-204

LA1-95	The Project actions proposed will impact in reality habitats, soil/geological resources, plants, animals and infrastructure well outside of the Project footprint. The Draft EIS does not address this adequately and again this lack of acknowledgement seems to be counter to at least the spirit of NEPA. Added to this the document does not adequately synthesize the breadth of potential cumulative effects of the Project. This analysis needs to look out several decades to be a true substantive analysis. Otherwise, the analysis and conclusions drawn could be potentially flawed and inaccurate.
LA1-96	The post-Project movement over the pipeline route continues to be another area where the reality of the unique Project route has been consistently brushed aside. This lack of acceptance of what local jurisdictions, local landowners and the US Border Patrol has repeatedly said results in many of the proposed mitigation strategies being more likely to be failures. This is not appropriately acknowledged in the document.
LA1-97	Contrary to statements made in the Draft EIS, the Border Patrol will not be able to stop illegal traffic over the Project route. They have not been able to do this in the past in the area. In discussion with Border Patrol they even acknowledge that if they are in pursuit of illegal activity they would use the post-project route where possible without regard to the impact on the ongoing mitigation efforts. Illegal activities will equally not be concerned with impacts on the proposed mitigation and restoration efforts. The Draft EIS does not show how those impacts will be addressed on a weekly or even daily basis during the period of impact restoration.
LA1-98	<p>The proposed methods to block access along the almost 60 miles of the Project route are unrealistic. In the section on Right-of-Way Maintenance the document states, "To facilitate periodic corrosion and leak surveys, a corridor not exceeding 10 feet in width centered on the pipeline may be maintained in an herbaceous state." This statement would seem to be in direct conflict with other statements in the document stressing no traffic on the ROW after construction and regarding revegetation and site restoration outcomes?</p> <p>It is probable that someone not familiar with the unique site and ecosystem that the Project runs through would read the Draft EIS and assume that in the final analysis, the Project will have only short-term impacts and have a relatively benign presence in the Altar Valley into the future. On so many fronts this is not the case and the Draft EIS has fundamentally failed in its job to clearly point this out.</p> <p>There are a number of areas that still have to be addressed and revised before a final EIS should be released, and include:</p>
LA1-99	<ul style="list-style-type: none"> There is no discussion of the impact the 60 mile long route will have on individual grazing pasture fences it will bisect. Who and how will fence points be maintained after the Project is completed and they get cut because of illegal use of the pipeline ROW? What impacts will result if livestock cannot be maintained in proper pastures as a result of the cut/destroyed fences?
LA1-100	<ul style="list-style-type: none"> Show a substantial reworking of the overall restoration plans, BMPs cited and documentation in reports and mitigation plans to reflect site specific and local conditions. Ensure a buyoff of local technical experts from natural resource agencies on final documents before the final EIS is released.
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LA1-95	See response to comment LA1-93.
LA1-96	See response to comment PM1-25.
LA1-97	<p>The EIS does not suggest that illegal activities would be eliminated to zero based on U.S. Border Patrol’s activities or Sierrita’s proposed mitigation measures to deter unauthorized use of the right-of-way. The EIS instead acknowledges that while the proposed mitigation measures may help to deter some vehicular traffic, they may not completely deter off-road vehicle use or pedestrian traffic along the right-of-way.</p> <p>It is unreasonable to expect that the U.S. Border Patrol would halt its activities to promote successful restoration.</p> <p>Also see response to comment SA6-12.</p>
LA1-98	<p>See response to comment SA6-4.</p> <p>In response to our recommendation in the draft EIS, Sierrita clarified that it would conduct noxious weed control, vegetation monitoring, and general maintenance activities within the right-of-way by pedestrian means. Vehicle use along the permanent right-of-way is not anticipated for monitoring or general maintenance activities following final restoration and clean-up.</p> <p>Contrary to the Natural Resources, Parks, and Recreation’s comments, the EIS acknowledges in several resource discussions that the Project would have long-term to permanent impacts on resources.</p>
LA1-99	Section 4.8.1.1 has been updated to clarify that Sierrita would install temporary gates and fences to contain livestock in actively grazed areas in coordination with the landowner or land-managing agency. As discussed in section 4.9.2, Sierrita would repair and replace fences that are damaged during construction and would monitor its right-of-way following construction, but would not maintain fences that are damaged after construction by entities other than Sierrita. The easement agreement between Sierrita and the landowner or agency would specify compensation for damage to property during construction, loss of use during construction, loss of renewable and nonrenewable or other resources, and allowable uses of the permanent right-of-way after construction. The FERC does not engage in monetary negotiations between the company and the landowner or land-managing agency.
LA1-100	<p>As discussed in section 1.2.2, the FWS-AESO, BANWR, AGFD, and CBP are participating as cooperating agencies in the preparation of the EIS because they have special expertise on environmental resources associated with the Project. Furthermore, comments on Sierrita’s plans from the public and agencies were solicited during the scoping period, a site visit, and the draft EIS comment period.</p> <p>The final EIS and Sierrita’s plans have been updated to incorporate comments from federal, state, and local agencies, landowners, local community groups, and the public to reflect site-specific and local conditions, as appropriate. These plans and comments have been filed with the FERC and are available for public comment.</p>

LA1 – Pima County, County Administrator’s Office (cont’d)

Z-205

- LA1-101 • Acknowledge and document in detail an analysis of the cumulative impacts on all resource categories of the Project beyond the narrow pipeline footprint.
- LA1-102 • Identify and require an independent body, with an adequate funding source, to oversee the actual vegetative restoration and restoration work along the pipeline. This could span at least a decade of annual monitoring work.
- LA1-103 • More aggressive analysis and discussions with US Fish and Wildlife, the State of Arizona and Pima County should be required looking at the costs and impacts of the eastern route along Highway 286 and the western alternative proposed, and whether a meaningful offer of compensatory lands and enhanced restoration of BANVR right of way could result in siting the pipeline along the East Route Alternative.

Community Development and Neighborhood Conservation

- LA1-104 The Environmental Justice requirement was established by Executive Order 12898 (February 11, 1994). The U.S. EPA defines environmental justice as:
 “Fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies.

“Meaningful involvement means that 1) people have an opportunity to participate in decisions about activities that may affect their environment and/or health; 2) the public’s contribution can influence the regulatory agency’s decision; 3) their concerns will be considered in the decision-making process; and 4) the decision makers seek out and facilitate the involvement of those in the potentially affected.” (emphasis added)

The DEIS identified no protected groups and therefore did not reach the disproportionate impact analysis. It concluded that:

“Minority populations comprise less than 50 percent of the population in Pima County, and minorities do not comprise more than 50 percent of the population in the region of influence as a whole.”
 (Table 4.10.7-1)

However census data for Pima County demonstrates the high minority population of the impacted region:

White (not Latino or Hispanic)	54.3 percent
Minority: (including Latino or Hispanic, Native American, African American, and One Or More Races)	45.7 percent

[Pima County Quick Facts, U.S. Census Bureau]

LA1-101 See response to comment NAT4-3.

The EIS does indeed discuss cumulative impacts on resources from the Project in a broader sense than just the pipeline right-of-way.

LA1-102 See responses to comments PM1-47 and SA6-12.

LA1-103 See response to comment PM1-11.

LA1-104 Section 4.10.7 has been updated to provide clarification of FERC’s analysis of environmental justice, including disproportionate impacts and public involvement. Section 4.10.7 provides our analysis of environmental justice consistent with FERC policy and regulations.

LA1 – Pima County, County Administrator’s Office (cont’d)

Z-206

LA1-104
(cont’d)

Almost 46 percent of Pima County residents are non-white minorities, a substantial proportion of the county population, and therefore comprises a protected class meriting the environmental justice scrutiny.

“FAIR TREATMENT” REQUIREMENT IS NOT SATISFIED

The Fair Treatment standard mandates an analysis of any serious disparate impact on protected classes by the Sierrita Gas Pipeline Project.

As stated above, the DEIS concludes that there is no protected class to consider because Pima County minority residents do not meet an arbitrary 50 percent threshold. Because the intent of the environmental justice executive order is to protect disadvantaged groups, Pima County’s 47 percent minority population is substantial enough to invoke the environmental justice analysis and mitigation strategies.

At a minimum, the environmental justice “Fair Treatment” standard requires that the EIS include objective health risk and economic assessments of the construction and operation phases of the Sierrita Gas Pipeline project on minority populations of Pima County, including residents of the Tohono O’odham Nation, which is located within several miles of the proposed pipeline routes.

Human health assessments would include but not be limited to air and water quality, noise pollution, and water supply impacts. The economic evaluation would assess the increase in law enforcement costs by the TO Nation and other jurisdictions, potential loss of tourism revenue, the disproportionate impact on low wage workers in the protected classes, and compare such costs to the offsetting increase in protected class employment opportunities presented by the construction and operation phases of the gas line project.

Protected classes like Pima County’s minority population possess less mobility and adaptability when confronted with changing conditions, such as the multiple environmental and socioeconomic impacts of the Sierrita Gas Pipeline project. This reality must be addressed in the evaluation of the impact on local disadvantaged communities.

“MEANINGFUL INVOLVEMENT” REQUIREMENT IS NOT ADDRESSED

Because the DEIS does not recognize any protected classes in the impacted community, it fails to describe any action taken or planned to satisfy the “Meaningful Involvement” legal requirement.

The draft contains no information or discussion concerning any community outreach efforts undertaken to ensure that protected groups had sufficient opportunity to provide feedback on the pipeline project, which is mandated by the “Meaningful Involvement” standard.

Protected classes by definition require special attention and effort, and communication methods which may suffice for the mainstream non-minority population are inadequate means for involving protected groups. Reasons include lack of access to electronic and mainstream print media; economic barriers to travel to meeting sites; inability to read or comprehend the English language; and cultural barriers limiting participation in large contentious public forums.

Meaningful outreach to Pima County’s minority communities might include small local meetings chaired by community leaders, workshops with participants selected from the protected class, use of local print media (e.g., monthly newsletters or newspapers), and attendance and participation at various community events.

LA1 – Pima County, County Administrator’s Office (cont’d)

Z-207

LA1-104 (cont'd) Without verification of "Meaningful Involvement" of the protected class of minority residents, the EIS does not comply with Executive Order 12898.

CONCLUSION

The Sierrita Gas Pipeline draft EIS fails to meet the Fair Treatment and Meaningful Involvement requirements set forth in U.S. Executive Order 12898, which establishes environmental justice standards.

Office of Conservation Science

LA1-105 Page 4-16. Greater monitoring should take place to ensure that Sierrita and its contractors do not cause damage outside of the right-of-way. More specific and sustained third-party site monitoring would address this issue.

LA1-106 Page 4-21. FERC makes a number of recommendations in the DEIS, such as the statement on page 4-21. These recommendations should be requirements, not recommendations. In this case, protecting topsoil from heavy rains is a very important minimization element.

LA1-107 Page 4-38. Regarding timing of construction, the document states: "upcoming weather forecasts would be monitored by the construction crews and EIs to determine if significant rainfall is anticipated at times when construction across dry washes is planned and, to the extent practicable, Sierrita would avoid installing the pipeline across dry washes during periods of anticipated rainfall." This is not practical during the summer monsoon season. The challenge is that if one extremely powerful storm were to impact the watershed of a wash crossing, the results could have negative impacts for years to come. Suggest prioritizing some wash crossing that could be sensitive to disturbance for the October-early June period.

LA1-108 Page 4-43. It would be a great service for Sierrita to go beyond the benchmark of leaving road in pre-construction conditions to actually fixing many of these roads to a higher standard. This standard is being set by the techniques employed in the Elkhorn/Las Delicias project. Leaving the roads in better condition than they were prior to construction could be a valuable form of mitigation.

LA1-109 Page 4-43. This statement is encouraging: "If the FERC determines that bank erosion or stream scouring issues are not adequately addressed, Sierrita would be required to remediate the problem." However, what measures would be used to determine this? Further, there is no discussion in the document about bonding/permitting, so what financial/regulatory instrument will compel Sierrita to abide by a determination by FERC?

LA1-110 Page 4-47. The reference to Gori and Enquist (2003) is not appropriate. That effort was a regional assessment and is not appropriate for site-specific assessments such as this. More detailed mapping of the native versus non-native component is appropriate for the Sierrita effort.

LA1-111 Page 4-51. Where is the data on vegetation density? Presumably this would be used as reference data for reclamation efforts, but these data are missing.

LA1-112 Page 4-56. The document discusses fire regimes, but what it does not acknowledge is that fire is a key restoration tool for grasslands. By placing the southern half of pipeline away from the road, it will create another barrier to using wildland fire for grassland restoration. Obtain fire plans from

LA1-105 See responses to comments PM1-17, PM1-24, PM1-47, FA3-4, and SA6-12.

LA1-106 Sierrita would be legally required to comply with any conditions included as a part of any Order. As described in section 5.2, if the Commission authorizes the Project, we recommend that the measures identified in section 5.2 be included as specific conditions in the Commission’s Order. These measures would further mitigate the environmental impact associated with construction and operation of the proposed Project in addition to those measures identified and proposed by Sierrita.

LA1-107 The commenter’s statement regarding the construction schedule is noted. Also see response to comment PM1-22.

LA1-108 The Office of Conservation Science’s comment regarding fixing roads to a higher standard is noted. As stated in section 4.10.4, Sierrita would restore temporary access roads to pre-construction condition or better unless otherwise requested by the landowner or land-managing agency.

LA1-109 FERC is the lead federal agency that would oversee construction and restoration of the Project. If FERC determines that restoration is not proceeding satisfactorily, or is contacted by a landowner with complaints regarding restoration, FERC would investigate and suggest possible remediation steps. Sierrita would be legally required to comply with any Project requirements as agreed to or conditions as included as a part of any Order issuing Certificate. If a company does not meet the conditions or regulations that apply to the Project, FERC has authority to refer the matter to its Office of Enforcement.

LA1-110 Section 4.4.1 has been updated to provide more detailed information on native versus non-native grasslands within the Project area.

LA1-111 Vegetation density would be determined according to the methodology established in section 5.1.1 of the *Post-Construction Vegetation Monitoring Document*.

LA1-112 Section 4.4.6 acknowledges that local land-managing agencies and landowners, including the AVCA and the BANWR, are currently implementing prescribed burns in Scrub-Grassland communities to reduce scrub, such as mesquite, snakeweed, and burroweed; rehabilitate native grasses; and improve wildlife habitat. Prescribed burns generally occur in late spring/early summer. Section 4.4.8.2 states that prior to construction, Sierrita’s land management and operations staff would coordinate with local managing agencies and landowners to discuss the schedule and procedures for prescribed fires in the vicinity or across the Project area. These discussions would also include best management practices and safety practices to be implemented near Sierrita’s aboveground facilities.

LA1 – Pima County, County Administrator’s Office (cont’d)

Z-208

LA1-112 (cont'd)	AVCA to better understand what wildland fire is planned for the valley. This information is a big omission from the EIS.
LA1-113	Page 4-57. The acres of impacts cited do not take into account the edge effects of the proposed activity. Suggest increasing the width of impacts to 200 feet to obtain a more realistic zone of impact.
LA1-114	Page 4-59: "The degree of impact on vegetation associated with the Project would depend on the rate at which the vegetation regenerates after construction." This is not an appropriate way to look at the situation. Existing vegetation and a future vegetation state should be analyzed separately.
LA1-115	Page 4-60: "Studies indicate that sites colonized with both annual and perennial species tended to have higher species diversity, promote landscape heterogeneity, and have higher wildlife habitat value" What studies are these? What wildlife values? And why is landscape heterogeneity a good thing?
LA1-116	Page4-65: "Revegetation would be considered successful when the cover and density of non-noxious vegetation within the construction right-of-way is similar to the adjacent undisturbed land." Explain why this type of cover is a reasonable measure for this performance criteria.
LA1-117	Page 4-76: "Construction of the Project would disturb about 957.7 acres of wildlife habitat." Again, this does not take into account areas adjacent to the disturbance. This number is not correct, especially given how most animals use an area. Include edge effects in this analysis because this is a biological reality for these species.
LA1-118	Page 4-77: "Those small mammal, amphibian, and reptile species not indicated as federally listed or candidate species for listing under the ESA or Arizona Wildlife of Special Concern (WSC) and SGCN (see table 4.5.1-1) appear to be locally abundant and have stable population levels." This statement simply cannot be backed up with data. Taking such broad-brush analyses severely weakens the EIS analysis. For example, Swainson's hawk are not noted as a species of concern, but their populations are known to be on the decline range-wide. Similarly, badgers are likely to be declining. These are just two examples.
LA1-119	Page 4-88. Using woody vegetation along cut banks is not a long-term solution. Vegetation that contacts the ground is quickly decomposed, mostly by termites. Rocks are a much more appropriate long-term solution.
LA1-120	Page 4-96. It is very surprising that Sierrita contractors found 2 cactus ferruginous pygmy owl nests during surveys. Please confirm this information. If this is correct, loss of these nests could have a detrimental impact to the area's population of this species. Table 4.7.1 does not indicate that two nests were found. Add western screech owl to list of possible species.
LA1-121	Table 4.7.1. The yellow-billed cuckoo has been observed nesting in Brown Canyon in 1998 (4 nests) and uses the Brawley Wash after nesting season.
LA1-122	Page 4-110: "Further, Sierrita would restore cover densities to pre-construction levels, or to at least greater than 1 percent, but less than 50 percent canopy cover". Pre-construction levels or at least 1 percent does not give the reader much confidence in success criteria. Eliminate the 1 percent language and only discuss pre-construction levels.
<div>Sierrita Pipeline DEIS</div> <div>Pima County Comments</div> <div>Page 23 of 26</div>	

LA1-113 Table 4.4.8-1 presents acreages of vegetation directly impacted by construction and operation activities. Secondary (indirect) effects associated with disturbances to vegetation, such as fragmentation and edge impacts, are discussed qualitatively in section 4.4.8.1.

LA1-114 Pima County's comment regarding analyzing vegetation is noted.

LA1-115 Refer to Abella, S.R. 2010. Disturbance and Plant Succession in the Mojave and Sonoran Deserts of the American Southwest. International Journal of Environmental Research and Public Health, 7: 1248-1284. Heterogeneity with respect to landscapes refers to variation in landscape elements, such as patches, corridors, and boundaries. Each landscape element provides different ecological functions. For example, a corridor provides a connection between patches, such as a wildlife corridor (see section 4.5.3), and a patch may serve as a home range for a particular species. The ecological functions provided by each of these landscape elements are important to maintaining the integrity of an ecosystem and, therefore, preserving the heterogeneity of the landscape is important.

LA1-116 This is the general criteria that FERC uses for all pipeline projects to determine when restoration is successful.

LA1-117 Section 4.5.1.1 has been updated to provide a qualitative discussion of the impacts of fragmentation and edge effects on various wildlife species. Note that edge effects can have both beneficial and adverse impacts on wildlife species, depending on the species and their habitat requirements.

LA1-118 For wildlife species that are not federally protected (sections 4.5.7 and 4.7.1), nor that have been identified as Arizona sensitive species (section 4.7.2), existing available data with regard to their populations suggest that these species are stable, and that the mitigation measures proposed by Sierrita in section 4.5.2 are sufficient to address potential impacts on these species within the Project area.

LA1-119 The placement of cut woody vegetation within the right-of-way following construction is intended to provide stabilization, obstruct vehicular traffic, provide cover, and increase wildlife habitat value as an interim measure while other revegetation and restoration measures (e.g., transplanting and seeding) and natural processes are establishing.

Also see response to comment LA1-20.

In addition, as described in Sierrita's *Reclamation Plan*, rocks removed from the land surface or subsoil would be stockpiled and placed back on the right-of-way near the same location after construction; rock would not be imported nor moved to other portions of the right-of-way.

LA1-120 As described in section 4.7.1.8, only one cactus ferruginous pygmy-owl nest was observed, located approximately 350 meters (1,148 feet) outside of the Project area. The breeding pair used one cavity as a nest and another cavity for food storage.

Local Agency Comments

LA1 – Pima County, County Administrator's Office (cont'd)

- LA1-120
(cont'd) Western screech owl is included in table 4.5-1 as a wildlife species common to the Project area, and has been added to table 4.5.7-1, Migratory Birds with the Potential to Occur in the Project Area.
- LA1-121 Comment noted. However, the portion of Brown Canyon that the Project crosses does not contain the appropriate nesting habitat for this species. As described in table 4.7.1-1, this species nests in dense, wooded, streamside riparian habitats consisting of willow, cottonwood, velvet ash, Arizona walnut, mesquite, and tamarisk trees. The FERC and Sierrita continue to consultation with the FWS on the effects of the Project on federally listed species. The status of this species has been changed from candidate to proposed threatened in table 4.7.1-1.
- LA1-122 The 1 to 50 percent canopy cover levels is specific to jaguar habitat, and is based on the primary constituent elements described by the FWS for this species in section 4.7.1.1 under Critical Habitat. Per the FWS, jaguar preferred habitat contains "1 to 50 percent canopy cover with Madrean evergreen woodland or semidesert grassland vegetation communities." Therefore, in areas of jaguar critical habitat, Sierrita would restore cover densities to pre-construction levels, or to at least greater than 1 percent, but less than 50 percent canopy cover, consistent with the primary constituent elements.

LA1 – Pima County, County Administrator’s Office (cont’d)

Z-210

LA1-123	Page 4-114. Any replacement of plants should be made using genetic stock from the Altar Valley.
LA1-124	Page 4-122. Transplanting Pima pineapple cactus has not been successful in past efforts, so why is this being proposed as a mitigation measures? Suggest that FERC review past studies done on these species.
LA1-125	Page 4-128. How was Sonoran Desert Tortoise "suitable" habitat defined? This map is incorrect and other modeling approaches (AZGFD and Pima County) have shown them to be much more widespread. Data from the AZGFD Heritage database will show this as well.
LA1-126	Page 4-129. "cover open trenches at the end of each work day or provide escape ramps for wildlife that may fall into the trenches." Provide more information about escape ramps. A lot of species of wildlife are very particular about what types of structures they would use.
LA1-127	Table 4.7.2. The buff-collared nightjar occurs in Brown Canyon, one of the few areas of the United States where this species occurs.
LA1-128	Page 4-147. No mitigation is offered to offset impacts to wildlife or any other resource. The EIS just lists a host of resources that might be impacted. FERC should compel the applicants to develop a mitigation plan that goes beyond revegetation. Activities such as paying for prescribed fire in the valley and purchasing and permanently protecting conservation lands would go a long way towards mitigation of these lands.
LA1-129	Page 4-161. The EIS expresses some confusion about the types of land that are owned by Pima County and whether those lands will be used by the County toward Section 10 mitigation. Pima County requests that Sierrita meet with us to go over lands that Pima County will commit to mitigation. This meeting should take place before the EIS is finalized.
LA1-130	Page 4-219. Any discussion of cumulative effects without consideration of the impacts outside of the right-of-way should be questioned. Pima County encourages broadening all impacts analysis to beyond the areas directly disturbed.
LA1-131	Page 4-230: "general, the grazing and ranching practices, prescribed and natural burns, recreational activities, and illegal activities in the Altar Valley are ongoing and may result in future impacts on vegetation. All the projects identified in table 4.14-1 (with the exception of the restoration projects) would continue a trend toward a reduction and degradation of these vegetation communities. " Pima County disagrees with this assessment and would submit that the use of wildland fire and proper grazing practices can work to improve conditions in vegetation. The paragraph goes on to say: "The electrical transmission, road, and other commercial projects would be subject to permitting requirements that we expect would identify mitigation measures to restore and/or revegetate disturbed areas, increase the stabilization of site conditions, minimize potential for erosion, and in many cases control the spread of noxious weeds, thereby minimizing the degree and duration of the impact on vegetation from these projects." Please provide examples of pipeline and powerline projects where soil stability and erosion have been successfully mitigated. Recent examples by Kinder Morgan show extreme erosion.
LA1-132	Page 4-237. There is no mention of the loss of vegetation and soil resource that store carbon. Loss of this carbon and its function as a carbon sink should be recognized when discussing the role of the project.
<div>Sierrita Pipeline DEIS</div> <div>Pima County Comments</div> <div>Page 24 of 26</div>	

LA1-123	Pima County’s comment regarding replacement of plants using genetic stock is noted.
LA1-124	Based on our consultations with the FWS, we understand that there are limited data available on the successful transplantation of Pima pineapple cacti; however, we conclude that even if Sierrita could accomplish a 30 to 40 percent transplant survival rate, this would be beneficial to the species. Therefore, in response to our recommendation in the draft EIS, Sierrita consulted with the FWS to develop an approach for transplanting and monitoring Pima pineapple cacti.
LA1-125	The Sonoran desert tortoise suitable habitat figure (figure 4.7.1-8) has been updated to reflect that suitable habitat is found in both Sonoran Desertscrub and Semidesert Grassland community types, as described in the text in section 4.7.1.7.
LA1-126	As discussed in section 4.5.2, Sierrita would leave breaks in stockpiles at least 10 feet wide approximately every 0.5 mile along the entire right-of-way. The location of ramps and breaks may be extended by up to 0.2 mile if it coincides with the location of a natural break in the construction right-of-way, such as a road crossing, ephemeral wash crossing, or highway crossing, where a ramp or break would already occur as part of construction. Sierrita would also install escape ramps adjacent to access roads crossed by the pipeline; each ramp would be sloped on each side (less than 45 degrees) to act as an escape ramp for any livestock/wildlife that happens to fall into or otherwise enter the trench.
LA1-127	Table 4.7.2-1 has been updated to acknowledge the potential for the buff-collared nightjar to use the Project area for foraging habitat; however, suitable nesting habitat (deciduous forest and pine-oak forests in rocky areas) is not found in the Project area.
LA1-128	Mitigation measures for state sensitive wildlife species not otherwise protected by federal regulations would be the same as those described in section 4.5.2. Similarly, the measures to protect sensitive plant species not otherwise protected by federal regulations or the Arizona Native Plant Law are described under section 4.4.8. Other mitigation measures for wildlife outside of the right-of-way, including off-site mitigation or compensation could be discussed with Sierrita during that agency’s permitting process.
LA1-129	The Office of Conservation Science’s comment recommending that Sierrita meet with Pima County regarding impacts on section 10 mitigation lands is noted. Section 4.8.2.2 addresses proposed section 10 mitigation lands.
LA1-130	The cumulative impacts discussion does consider impacts outside of the immediate Project right-of-way.

LA1 – Pima County, County Administrator's Office (cont'd)

Z-211

- LA1-131 Section 4.14 (Environmental Setting) has been updated to acknowledge the benefits of prescribed fires and controlled grazing.
- FERC can provide examples of numerous pipeline projects nationwide where soil stability and erosion have been successfully mitigated. Although FERC has not overseen construction and restoration of any projects specific to the Altar Valley, we have overseen construction and restoration of projects in the southwest and other arid climates. Three examples are:
- EPNG's Ducto de Nogales Lateral, Meter Station, and Border Crossing (FERC Docket Nos. CP01-41 and CP08-284) in Santa Cruz County, Arizona
 - TransCanada Pipelines Limited's North Baja Pipeline Project (FERC Docket No. CP01-22) in La Paz County, Arizona and Riverside and Imperial Counties, California; and
 - EPNG's Willcox Lateral 2013 Expansion Project (FERC Docket No. CP12-6) in Cochise County, Arizona.
- We note that these projects have illustrated that revegetation and soil stability can be achieved, and in areas where those parameters have not yet been met, FERC continues to monitor and request necessary remediation or corrective actions.
- LA1-132 Sierrita would not permanently remove soil or vegetation from the Project area with the exception of 10.2 acres required for aboveground facilities. Sections 4.4.8 and 4.4.9 have been updated to include information on the impacts of vegetation removal on carbon sequestration in deserts.

LA1 – Pima County, County Administrator’s Office (cont’d)

Z-212

LA1-133	Table D-1-2. Erosion control features should be installed on a variety of dry wash crossings, because these washes can flood during the monsoon season. Significant loss of soil can result from these flooding events; erosion control structures can mitigate some of this damage.
LA1-134	Table D-1-5: “If flow conditions develop during construction of a given dry wash crossing, Sierrita’s EIS and environmental crews would be notified immediately to determine the extent of the flow and would install additional erosion control devices as necessary.” This is just not practical in the extreme flooding situations that occur during the monsoon season.
LA1-135	Table D-1-6. Rocks that are not used immediately on site can be used at a future date for erosion control features or at nearby restoration sites.
LA1-136	Table D-1-8. Seeding mixes placed on site at the wrong time of year are not effective. The hydroseeding is good for surface stability, but if placed on the wrong time of year (February for winter annuals, for example) it will impact efficacy of the program. This is hinted at on page D-15, but there it seems that the SOP contradicts itself. On the one hand it says to put seeds down at the beginning of the growing season and on the other hand reseed within a few days of covering the trench. Clarify this.
LA1-137	Page F-8. Again, seeds should be sourced from populations in the Altar Valley.
LA1-138	Page F-11. A spot check of the references in this section show that they are not found in the body of the Appendix.
LA1-139	Page G-9: “number of desirable species that occur within the 1 x 1-meter quadrants or along the line-point intercept transects within the ROW and off-ROW control plots”. A 1x1m area is not sufficient size to understand species composition. A much larger area is needed, such as the 100x30 area. Developing a species list for this size of an area is not difficult.
LA1-140	Page G-10. Frequency of 50 percent less the control plot is not high enough. Suggest at least 75 percent.
LA1-141	Page G-19. On the first part of the page the document states: “Sierrita will control weed densities on the ROW to a level that is at or below levels in adjacent areas.” But it then goes on to say “Control plots will not be necessary because the presence or absence of weeds will be assessed. If weeds are present, then their relative cover will be visually assessed.” How would one know, without comparing to adjacent sites, what density is normal? Effectively monitoring invasive species is very challenging and the method proposed does not give confidence that if invasive species spread that such a change will be detected. Pima County recommends comparison with adjacent sites that will not be impacted by construction activities. Also, note that construction activities will have impact on plant communities outside of the right-of-way.
LA1-142	Page G-22. Recommend including species richness and frequency as performance criteria. This was discussed earlier in the document, but it was not carried forward to performance criteria.
LA1-143	Page H-11. Cleaning stations should be checked (and if needed, treated) every month during the growing season. Biologists should be familiar enough with plants of the area to recognize new species of invasive plants, including species that are not on current lists.
<div>Sierrita Pipeline DEIS</div> <div>Pima County Comments</div> <div>Page 25 of 26</div>	

- LA1-133 Sierrita’s Plan and Procedures require that Sierrita install erosion control measures at dry wash crossings as necessary, including during precipitation events (see section IV.F of Sierrita’s Plan).
- LA1-134 We conclude that the measure sin Sierrita’s revised Plan and Procedures would effectively minimize the potential for off-site erosion during construction. If the Commission’s compliance monitor observes a construction activity that violates (is not in compliance with) the Project specifications, the monitor would issue a noncompliance report and include the report in its daily and weekly reports provided to the Commission. Resolution of noncompliance activities would involve close coordination between the EIs and Sierrita’s contractor supervisory personnel to ensure that the corrective measures are properly understood and implemented. The EI would confirm that corrective actions have been completed and document the resolution in the required weekly status report filings submitted to the FERC. Sierrita would also be legally required to comply with any Project requirements as agreed to or conditions included as a part of any Order issuing Certificate.
- LA1-135 See response to comment LA1-20.
- Also, as noted in section 4.0 of Sierrita’s *Reclamation Plan*, rocks removed from the land surface or subsoil would be stockpiled and placed back on the right-of-way near the same location after construction. The rocks, where present and where useful for reclamation, would be windrowed adjacent to the topsoil stockpiles. Rock would be separated from the topsoil and placed on the construction right-of-way or in temporary workspaces for use in erosion control or unauthorized access controls or if requested by the landowner or land management agency. In addition, section V.A.3 has been revised to state that “rock that is not returned to the trench should be considered construction debris, *unless the rock is to be used to impede access (with landowner approval)....*”
- LA1-136 Section 6.2 of Sierrita’s *Reclamation Plan* has been revised to include a table specifying seed application mix, method, and timing by milepost based on consultations with the NRCS.
- LA1-137 The Office of Conservation Science’s comment regarding seed sources for Sierrita’s consideration is noted. Sierrita committed to consulting with the NRCS on the composition of seed mixes and use of locally collected seed mix prior to construction.
- LA1-138 The Office of Conservation Science’s comment regarding references in the *Reclamation Plan* is noted. Please note that Sierrita’s *Reclamation Plan* is not a FERC-produced document.
- LA1-139 Comment noted. Please note that Sierrita’s *Reclamation Plan* is not a FERC-produced document. While we recognize that sound scientific methods are appropriate, we note that it is at Sierrita’s discretion to make changes recommended by parties other than landowners and land-managing and/or permitting agencies.

Local Agency Comments

LA1 – Pima County, County Administrator’s Office (cont’d)

- LA1-140 See response to comment LA1-139.
- LA1-141 Sierrita would implement the measures provided in Sierrita's revised *Noxious Weed Control Plan*, and to control the spread of noxious weeds during construction (e.g., the use of equipment wash stations), and the *Post-Construction Vegetation Monitoring Document* to monitor noxious weed within both the construction right-of-way and the undisturbed 300-foot-wide survey corridor post-construction. Noxious weed populations would be treated if the percent cover is greater within the right-of-way than the percent cover of the same species outside of the right-of-way. Sierrita would work with the ASLD to also treat areas within the survey corridor to the extent practicable on ASLD property.
- LA1-142 Sierrita revised its *Post-Construction Vegetation Monitoring Document* based on consultations with federal, state, and local agencies, local landowners, and local community groups, and includes performance criteria for species composition and frequency (see section 5.1.1).
- LA1-143 Section 6.0 of Sierrita’s *Noxious Weed Control Plan* discusses equipment cleaning.

LA1 – Pima County, County Administrator’s Office (cont’d)

Z-214

LAI-144

Page H-15. Visual assessment and cover class categories can create a very subjective criteria for deciding whether or not to treat. Suggest developing more objectives measures that would compel treatment.

Sierrita Pipeline DEIS

Pima County Comments

Page 26 of 26

LA1-144 Comment noted. Please note that Sierrita’s *Noxious Weed Control Plan* is not a FERC-produced document.

LOCAL AGENCIES

LA2 – City of Nogales

**CITY OF
NOGALES**



December 13, 2013

Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426
Attn: Ms. Kimberly Bose, Secretary

ORIGINAL

OFFICE OF THE CITY ATTORNEY

FILED
SECRETARY OF THE
COMMISSION
2013 DEC 24 A 8 54
FEDERAL ENERGY
REGULATORY COMMISSION

Re: Docket Nos. CP13-73-000 and CP13-74-000

Enclosed is a copy of Resolution No. R2013-07-008 of the Council of the City of Nogales, Arizona, supporting additional study of a gas siting alternative that includes a route through "Ambos Nogales" (literally, "both Nogaleses"): Nogales, Arizona and Nogales, Sonora. We request that you file this Resolution in the above dockets.

Thank you for your attention to this request.

Sincerely yours,


Michael J. Massee
Deputy City Attorney
Encl.

777 NORTH GRAND AVENUE · NOGALES, ARIZONA 85621 · (520) 287-6571 · FAX (520) 285-5628 T.D.D. (520) 287-5477

Z-215

Local Agency Comments



Resolution No. R2013-07-008

**A RESOLUTION OF THE COUNCIL OF THE CITY OF NOGALES, ARIZONA, EXPRESSING
SUPPORT FOR AN ALTERNATIVE NATURAL GAS PIPELINE THAT INCLUDES AMBOS NOGALES.
(MAYOR)**

WHEREAS, last November, El Paso Natural Gas (EPNG), owned by Kinder Morgan Energy Partners, L.P. and Kinder Morgan, Inc., announced a 25-year transportation precedent agreement in connection with plans to build a new lateral pipeline in Arizona to serve customers in Mexico with supplies of clean, efficient natural gas; and

WHEREAS, terms call for EPNG, acting through its affiliate Sierrita Gas Pipeline LLC (formerly Sasabe Pipeline Company) to provide approximately 200 million cubic feet per day of firm transportation capacity via a new, 36-inch diameter lateral pipeline that would extend approximately 60 miles from EPNG's existing south mainlines, near Tucson, to the U.S.-Mexico border at Sasabe; and

WHEREAS, Mexico's Comisión Federal de Electricidad (CFE) has awarded two contracts to Semptra International's Mexican business unit to construct, own and operate an approximately 500-mile, \$1 billion pipeline network connecting Sonora and Sinaloa; and

WHEREAS, EPNG's proposed lateral will interconnect with the new Semptra network to provide clean efficient natural gas to commercial customers in Mexico to help meet its stated environmental goals of converting existing fuel-oil-fired power generation plants to efficient, clean-burning natural gas, as well as having natural gas supplies available for new power plants in the future; and

WHEREAS, CFE has specified that a new U.S. pipeline would be required to terminate at Sasabe; and

WHEREAS, EPNG has filed an application with the Federal Energy Regulatory Commission (FERC) seeking approval for one of its two alternative pipelines, one that goes through the Buenos Aires National Wildlife Refuge (BANWR) southwest of Tucson, and another that runs further to the west; and

WHEREAS, the management at BANWR has determined that siting a natural gas pipeline is not consistent with the mission of the refuge; and

WHEREAS, a decision by FERC regarding which of the alternative proposed pipelines is to be analyzed for the purpose of preparing a final environmental impact statement is anticipated by the end of this year; and

LA2-1

WHEREAS, another alternative route exists, which is upgrading one of the two existing natural gas pipelines that currently carry natural gas to Nogales, Arizona, from Sonoita, roughly parallel to State Route 82, and the other through Tubac and through the Santa Cruz River valley; and

WHEREAS, this additional alternative, known as the "Ambos Nogales" corridor, would upgrade Nogales, Arizona's natural gas supplies and would allow the pipeline to service consumers and businesses in Nogales, Sonora with clean, efficient natural gas, instead of burning other forms of fossil fuels and wood; and

WHEREAS, downtown Nogales, Arizona comprises one of two non-attainment areas in southern Arizona, largely due to airborne particulate matter produced in Nogales, Sonora from burning wood for heating in the winter months; and

LA2-1

See responses to comments PM1-4, PM1-6, PM1-9, and PM1-41.

LA2 – City of Nogales (cont'd)

RESOLUTION No. R2013-07-008

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LA2-1
(cont'd)

WHEREAS, CFE's "requirement" that the pipeline interconnect occur in Sasabe is not a legally controlling condition as FERC reviews siting alternatives; and

WHEREAS, substantial local economic and environmental benefits will accrue from the Ambos Nogales siting alternative; and

WHEREAS, the Council of the City of Nogales, acting on behalf of the citizens and residents of Ambos Nogales, believe and are convinced that additional siting alternatives must be explored prior to issuing environmental and regulatory permits for the Sierrita Lateral Project.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Nogales, Arizona that it hereby expresses its strong support for delaying issuance of environmental and regulatory permits for EPNG's Sierrita Lateral Project until such time as an alternative that includes siting the proposed pipeline through Ambos Nogales is thoroughly explored, including taking public comments on such an alternative.

BE IT FURTHER RESOLVED by the Council of the City of Nogales that the City Manager and staff are authorized to communicate this Resolution to the Federal Energy Regulatory Commission, the Comisión Federal de Electricidad and other relevant regulatory bodies, and take such further action reasonable and appropriate to further the stated intentions of this Resolution.


PASSED, ADOPTED, AND APPROVED by the Council of the City of Nogales, Arizona, this 10th day of July, 2013.


Arturo R. Garino, Mayor

ATTEST:


Leticia Robinson, City Clerk

APPROVED AS TO FORM:

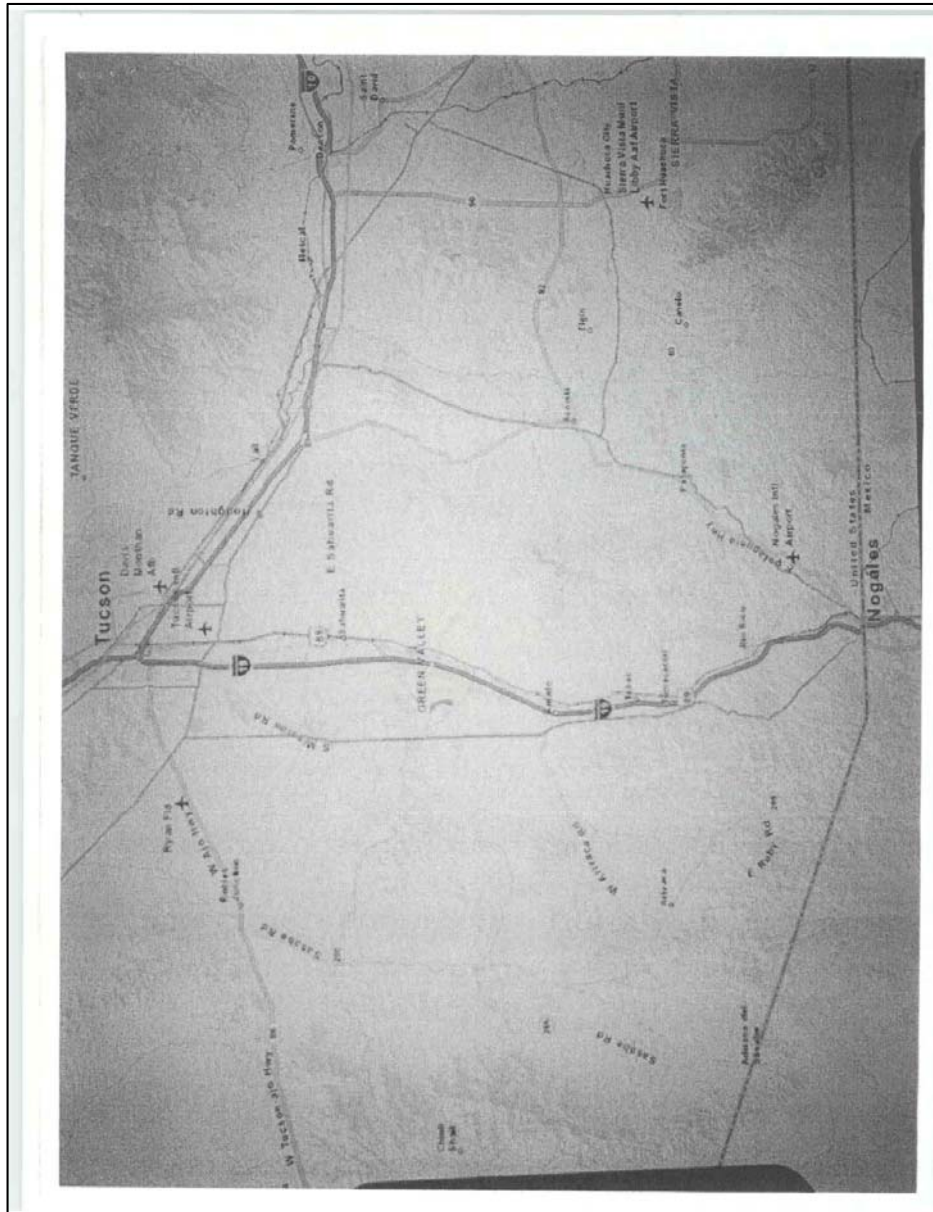

Jose S. Machado, City Attorney

Z-217

Local Agency Comments

LA2 – City of Nogales (cont'd)

Z-218



Local Agency Comments

**COMPANIES AND ORGANIZATIONS
COMMENTS AND RESPONSES**

COMPANIES AND ORGANIZATIONS

CO1 – Santa Margarita Ranch, Inc.

Santa Margarita Ranch, Inc.

4582 N. First Avenue
Suite 190
Tucson, AZ 85718

December 12, 2013

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

RE: **Docket No. CP 13-73-000 and CP 13-74-000, Sierrita Pipeline Project**
Draft EIS Comments

Dear Ms. Bose:

Santa Margarita Ranch (SMR) is a large cattle ranch covering approximately 70,000 acres in the western half of the Altar Valley in southeastern Arizona. SMR's land has supported an active agricultural enterprise for over one hundred years and is managed in a sustainable manner to continue that tradition into the future. SMR is a founding member of the Altar Valley Conservation Alliance (AVCA), a collaborative organization of landowners in the Altar Valley dedicated to watershed-based management. SMR and AVCA share a vision to maintain the Altar Valley as one of the last large-scale desert grassland environments, unaffected by urban encroachment, remaining in the southwest United States.

FERC recently issued a Draft Environmental Impact Statement (DEIS) for the Sierrita Pipeline Project (Project) proposed by Sierrita Gas Pipeline, LLC (Sierrita). The proposed Project will encompass a thirty-six inch radius natural gas pipeline that will run approximately sixty miles through the heart of the Altar Valley. Of those sixty miles, approximately twenty-two miles of the pipeline will cross SMR land and will have dramatic adverse impacts on our property. These impacts include:

1. The majority of our livestock fencing runs in an east to west direction. The proposed western route pipeline will intersect this fencing at numerous places. Although Sierrita has stated it will repair the fencing cut or damaged by pipeline construction activities, it also has stated it will not be responsible thereafter to repair damage to fences along the pipeline route caused by others. The pipeline corridor will create a natural travel path for livestock, wildlife and illegal immigration. This increased pressure at the points where the pipeline crosses the fences will lead to the fences being cut, laid down or otherwise impacted. It is imperative that SMR be able to keep livestock in a designated pasture for purposes of breeding, branding, proper pasture usage and compliance with the Arizona State Land Department (ASLD) grazing lease provisions. Such extreme pressure on the fences at the point of pipeline crossing will make it very difficult to maintain our

CO1-1

CO1-1

See responses to comments SA9-28 and LA1-99.

CO1 – Santa Margarita Ranch, Inc. (cont'd)

Z-220

CO1-1 (cont'd)	livestock in any given pasture and create additional labor costs to constantly repair these fence locations.
CO1-2	2. The proposed western route pipeline corridor will be near several existing housing improvements, in one case as close as one quarter of a mile. This pipeline corridor will become a travel path for illegal aliens, their smugglers and drug smugglers. A condition of employment is that our employees live full time at these remote housing locations. Many of our employees have spouses that remain alone at these houses with no protection and response time from local law enforcement that may be hours instead of minutes. By directing illegal traffic near these houses the pipeline is creating a very real safety issue for these innocent people.
CO1-3	3. The Altar Valley landscape is a very fragile place with uncertain rainfall timing and amounts. No matter how well the soil is replaced after trenching, a high intensity storm will create additional drainage erosion that is very difficult to repair. SMR and AVCA have spent substantial amounts of money and time repairing past erosion problems in the Altar Valley. A high intensity storm may occur some years after Sierrita has completed the pipeline leaving SMR with the responsibility and cost of repairing the erosion damage from that storm.
CO1-4	4. The proposed mitigation reseeding efforts will be very difficult on the SMR due to our erratic rainfall. SMR has attempted in the past to reseed areas of the property with very little success. This is due to the rain not occurring at the right intervals after the seeds are disbursed. A proposed reseeding program that does not occur over a period of at least five years will not succeed in this area. Without grass growth, erosion will increase all along the pipeline corridor to the detriment of SMR and the Altar Valley as a whole.
CO1-5	5. The proposed pipeline will adversely affect the value of SMR. Although Sierrita may attempt to compensate SMR for easements across its private lands, the pipeline will also impact the value of the ranch as a whole. A large part of the value of SMR is in its ASLD grazing leases. The impacts cited above would act to reduce the value of SMR in a subsequent buyer's opinion. Also, many purchasers of ranch properties do so for aesthetic reasons such as natural space, scenery and wildness. A pipeline corridor, with its un-vegetated scar running across the total length of the SMR property, very highly detracts from that vision of a natural landscape. This adverse financial impact has not been addressed in the DEIS or by Sierrita.
In addition, and with respect to those impacts, we offer the following comments to the DEIS:	
CO1-6	1. The DEIS fails to properly analyze the various alternative routes for the Project. Sierrita's insistence on a connection at Sasabe, Arizona due to the constraints of its contract with a Mexican pipeline company should not govern the location of the Project in this country. Rather, the pipeline should be routed according to social and environmental analysis of the best route in the United States, as governed by NEPA law.

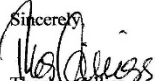
CO1-2	Section 4.9.1 has been updated to acknowledge remote employee housing where illegal activities might be directed to as a result of the Project.
CO1-3	See responses to comments PM1-17, FA3-4, and SA6-12.
CO1-4	As discussed in section 4.4.8, the primarily grass component of the mixed grass-scrub community, which accounts for about 53 percent of the vegetation impacted by the Project, would be expected to recover rapidly, in 2 years or less; however, species richness may take longer to recover, ranging from an average of 2 to 13 years. The recovery of perennial grasses, however, can take longer, especially if invasive or noxious grasses colonize the disturbed area. The EIS acknowledges that the duration of the recovery and species composition of grasses is greatly influenced by climate and short-term precipitation following reclamation, as noted by the Santa Margarita Ranch's comment. Also see response to comment SA6-12.
CO1-5	Section 4.10.5 addresses Project-related impacts on property values. As noted in section 4.10.5, each potential purchaser has different criteria and differing capabilities to purchase land.
CO1-6	See responses to comments PM1-4 and PM1-6.

CO1 – Santa Margarita Ranch, Inc. (cont'd)

Z-221

- CO1-7 | 2. Sierrita's preferred alternative of the Western Route will create numerous problems for SMR and the Altar Valley as a whole. This route was arbitrarily chosen to avoid the Buenos Aires National Wildlife Refuge (BANWR) without any consideration given to the Altar Valley's topography, ecology, hydrology, security, socioeconomics or other issues. These issues include, but are not limited to, the following:
- CO1-8 | a. The Western Route lies perpendicular to the existing drainage of the Altar Valley and it will be very difficult to avoid creation of massive and wide-scale erosion in this very sensitive area after crossing several hundred drainage ways.
- CO1-9 | b. The Western Route, with its north-south alignment, will create a de facto corridor for illegal immigrant and drug trafficking, and force Customs and Border Patrol agents as well as local law enforcement personnel to respond to that traffic.
- CO1-10 | c. SMR, as grazing lessee to the ASLD, has a responsibility to maintain the integrity of its grazing lands. Any erosion or other problems that originate within the pipeline easement and migrate outside that easement will become the responsibility of SMR. This creates a tremendous financial burden for SMR.
- CO1-11 | 3. The proposed mitigation measures for the pipeline construction and maintenance are vague and insufficient to address the damage that will be caused. Please refer to the letter from AVCA commenting on the DEIS regarding specific mitigation issues to be addressed. We would also note that currently there is no performance bond contemplated in the event Sierrita fails to honor its mitigation responsibilities in the future. In the (hopefully unlikely) event that the Western Route is approved, there should be a performance bond or endowment requirement to provide funding for future restoration/mitigation costs to prevent SMR or other landowners in the Altar Valley from having to bear this responsibility through no fault of their own. A formal mitigation monitoring team should be formed of landowners and local land management agencies to actively monitor the pipeline corridor for at least ten years after construction.
- CO1-12 |

Finally, SMR incorporates by reference the comment letter from AVCA on the DEIS, including the request for preparation and issuance of a supplemental DEIS, given the deficiencies of the current DEIS. In that manner, FERC can and should respond to and address the concerns of SMR, AVCA and other persons or entities who offer critical comment on the DEIS. In that regard, and as previously indicated, SMR strongly opposes the Project's proposal of the Sasabe border crossing and the Western Route.

Sincerely,

 Thomas Gilliss
 President

- CO1-7 | See response to comment PM1-10.
- CO1-8 | The Santa Margarita Ranch's concern regarding the Project's crossing of the Altar Valley is noted.
- CO1-9 | Also see responses to comments PM1-17, FA3-4, and SA6-12.
- CO1-10 | Section 4.9.1 acknowledges that the right-of-way could create a new north-south travel corridor for existing illegal activity within the Altar Valley. Section 4.10.3 acknowledges that the Pima County Sheriff's Department believes that illegal immigration activities would likely increase in the Altar Valley as a result of the Project and the costs associated with increased enforcement controls and incident investigations.
- CO1-11 | See responses to comments PM1-17, PM1-24, FA3-4, SA6-12, and SA9-8.
- CO1-12 | The easement agreement between Sierrita and the landowner or agency would specify compensation for damage to property during construction, loss of use during construction, loss of renewable and nonrenewable or other resources, and allowable uses of the permanent right-of-way after construction. The FERC does not engage in monetary negotiations between the company and the landowner or land-managing agency.
- CO1-13 | Sierrita would be legally required to comply with any Project requirements as agreed to or conditions as included as a part of any Order issuing Certificate. If a company does not meet the conditions or regulations that apply to the Project, FERC has authority to refer the matter to its Office of Enforcement.
- CO1-14 | The Santa Margarita Ranch's comment that a formal mitigation monitoring team consisting of landowners and local land management agencies to monitor the pipeline corridor for at least 10 years after construction is noted.
- CO1-15 | As described in section 4.8.3.1, we recognize that during or after construction, issues or complaints may develop that were not addressed during the environmental proceedings at the Commission and it is imperative that landowners continue to have an avenue to contact Sierrita's representatives. We are recommending in section 5.2 that as part of its Implementation Plan, Sierrita file weekly status reports until all construction and restoration activities are complete that detail, amongst other things, a description of any landowner/resident complaints which may relate to compliance with the requirements of any Order, and the measures taken to satisfy their concerns. A third-party compliance monitor under the direction of the FERC would be onsite daily during construction documenting Sierrita's construction and restoration through about the time the pipeline would be placed into service.

CO1-12
(cont'd)

FERC staff would periodically inspect the Project during construction and restoration to ensure restoration occurs and, if any issues arise, they are addressed. The third-party monitors would also consult with FERC staff as needed during construction and restoration.

Furthermore, the FERC would continue its oversight of the Project area after construction by conducting its own compliance inspections. The FERC would require Sierrita to continue its revegetation efforts until the FERC determines that restoration is successful, which, as noted throughout the EIS, may take decades.

COMPANIES AND ORGANIZATIONS

CO2 – Santarella & Eckert, LLC

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SANTARELLA & ECKERT, LLC

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LITTLETON, CO 80125

TELEPHONE: 303-932-7610
FACSIMILE: 888-321-9257

VIA ELECTRONIC FILING

December 16, 2013

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426
www.ferc.gov

Re: **Sierrita Gas Pipeline, LLC**
Sierrita Gas Pipeline Project (Pima County, AZ)
Docket Nos. CP13-73-000; CP13-74-000

Dear Secretary Bose:

On behalf of the Western Ranchers Alliance (“WRA”), the Rocky Mountain Environmental Labor Coalition (“RMELC”), and the United Association (“UA”), Pipeliners Local No. 798, (“Local 798”), collectively (the “Commenters”), undersigned counsel hereby submits comments in support of the proposed Sierrita Gas Pipeline, LLC’s Sierrita Gas Pipeline Project (“Sierrita Pipeline Project”) and Federal Energy Regulatory Commission’s (“FERC’s”) Draft Environmental Impact Statement (“DEIS”) for the Sierrita Pipeline Project, Pima County, Arizona. Please accept these comments in support of the Sierrita Gas Pipeline Project and the DEIS for filing in the above-referenced docket numbers.

The Sierrita Gas Pipeline, LLC is proposing to construct a natural gas pipeline with a tie-in with El Paso Natural Gas Company’s existing South Mainline System near Tucson, Arizona, south to the United States-Mexico border near Sasabe, Arizona. The proposed Sierrita Pipeline Project will include the construction of approximately 60 miles of 36-inch diameter natural gas transmission pipeline in Pima County, Arizona. At the border, the pipeline would interconnect with the Sasabe-Guaymas Pipeline in Mexico. In Mexico, the 338-mile long Sasabe-Guaymas Pipeline would extend from the border to electric generation facilities near Puerto Libertad and Guaymas, Mexico. As a result of this natural gas pipeline, Mexico is proposing to convert/replace fuel oil thermal generation plants into natural gas-fired combined-cycle generation plants, which will have a positive impact on air quality and reduce greenhouse gas emissions.

The supporters of these comments are as follows:

WRA is a not for profit organization with a business address of 142 Via Vista Circle,

Z-223

CO2 – Santarella & Eckert, LLC (cont'd)

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WRA, RMELC and Local 798 Comments on Draft EIS
Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
December 16, 2013
Page 2 of 3

Durango, Colorado 81303. WRA advocates for the interests of ranchers and property owners to promote and ensure safe and good quality construction of new and existing pipelines in the Rocky Mountain region and to engage public officials and stakeholders on issues relating to the construction of pipeline projects such as the proposed Sierrita Pipeline Project in Pima County, Arizona.

The RMELC is a not for profit organization with a business address of 2150 Naegele Road, Colorado Springs, Colorado 80904, that seeks to ensure a balance between rapid population growth, labor interests and the preservation of the natural environment in the Rocky Mountain region. RMELC provides a voice for workers and unions to engage their neighbors and public officials on pressing environmental issues such as the air quality and global implications of electric utility and natural gas projects. RMELC seeks to unite labor leaders, union members, environmental activists and other concerned local citizens in the Rocky Mountain region to fight for good jobs and a clean environment in furtherance of the laudable goals of the Blue/Green Alliance. Members of RMELC live, work, or recreate in the area of the proposed Sierrita Pipeline Project in Arizona and will be directly affected by decisions of FERC to issue an EIS for the proposed Sierrita Pipeline Project.

Local 798, a labor organization headquartered at 4823 S. 83rd E. Ave, Tulsa, Oklahoma, 74145, is fully dedicated and determined to provide leadership, representation, and fair treatment to all Pipeliners in the industry. Local 798 continues to meet the needs of our nation's energy infrastructure throughout the country. The quality and craftsmanship of the Local 798 membership has been used on such large projects as the *Alyeska, All-American, Great Lakes Expansion, Florida Gas, Alliance, Vector, Patriot, Rockies Express, Gulf Steam*, and the *Iroquois*. In addition, millions of man hours have been devoted to maintenance, gathering systems, and station work. Local 798 has always and remains diligent in keeping up to date with all new technologies that will assist UA members and union contractors.

In support of the proposed Sierrita Pipeline Project and the DEIS, the Commenters are focusing on the socioeconomic impacts and the pipeline safety issues associated with the proposed project as part of the NEPA analysis for the DEIS. Sierrita Gas Pipeline, LLC has agreed to utilize union contractors for the construction of the natural gas pipeline in Pima County, Arizona. The Commenter applaud that decision ensuring safe pipeline construction using well-trained and experienced workers who are committed to using the best practices to make sure there are fewer risks and chances for accidents during the construction of the proposed Sierrita Pipeline Project.

CO2-1

The Sierrita Pipeline Project construction will create good union jobs in Arizona and support the long-term economic viability of Arizona communities through the increased use of a local workforce and help create long term career opportunities for workers. The Sierrita Pipeline Project workers will receive good wages and benefits and will spend those wages in local Arizona businesses and will pay taxes to support local schools and public works projects. Paying higher wages and better fringe benefits help reduce the hidden costs taxpayers often bear when workers are paid low wages and do not receive health benefits that result from increases in

CO2-1

The Western Ranchers Alliance's, Rocky Mountain Environmental Labor Coalition's, and the United Association, Pipeliners Local No. 798's comments supporting the economic benefits of the Project are noted.

Z-224

CO2 – Santarella & Eckert, LLC (cont'd)

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WRA, RMELC and Local 798 Comments on Draft EIS
Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
December 16, 2013
Page 3 of 3

CO2-1
(cont'd) | claims for income assistance and the expense of providing emergency room health services to the uninsured within the local community.

CO2-2 | The workers on the Sierrita Pipeline Project will have excellent training from union apprenticeship programs registered with the United States Department of Labor. Having trained workers building the pipeline should address any safety concerns about the Sierrita Pipeline Project. These training programs teach the workers how to comply with health and safety and environmental requirements increasing workers' awareness at the work site. Trained workers are going to make a better and safer pipeline by following workplace safety guidelines, pipeline safety rules and environmental regulations. Workers who have completed apprenticeship programs are less likely to have accidents or build shoddy pipe resulting in leaks or pipelines being ruptured. Leaks and ruptures lead to the release of natural gas into the environment. Properly trained workers, therefore, lessen the chance of welds failing, pipelines leaking or pipelines being ruptured. Leaky and poorly constructed pipelines threaten public health and the environment increasing the likelihood of a pipeline explosion. Such leaks have significant public safety and environmental consequences because methane in the natural gas is explosive in high concentrations and is a potent greenhouse gas with substantial global warming implications.

In conclusion, the Commenters support the proposed Sierrita Pipeline Project and urge FERC to issue the Final Environmental Impact Statement so that construction of the project may begin promptly and the resultant anticipated air quality benefits are achieved. The Commenters believe the proposed Sierrita Pipeline Project is in the best interests of Pima County, Arizona and the United States. Thank you for your consideration of these comments on the proposed Sierrita Pipeline Project.

Very truly yours,

/s/

Joseph M. Santarella Jr.
Susan J. Eckert

Counsel for WRA, RMELC and Local 798

CO2-2 | Section 4.13 addresses the potential safety impacts associated with the Project. The Western Ranchers Alliance's, Rocky Mountain Environmental Labor Coalition's, and the United Association, Pipeliners Local No. 798's comments supporting employment of trained workers and safe pipeline construction are noted.

Z-225

COMPANIES AND ORGANIZATIONS

CO3 – University of California, Berkeley, Department of Geology

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UNIVERSITY OF CALIFORNIA, BERKELEY

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SANTA BARBARA • SANTA CRUZ

DEPARTMENT OF GEOGRAPHY
507 McCone Hall # 4740
BERKELEY, CALIFORNIA 94720-4740
(510) 642-3903
FAX (510) 642-3370

16 December 2013

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

RE: Sierrita Pipeline Project, Docket Nos. CP13-73-000 and CP13-74-000

Dear Secretary Rose,

I am writing to express my strong opposition to the proposed Sierrita Pipeline Project through the Altar Valley of south-central Arizona. As a scholar, I have studied the Altar Valley for the past 18 years, and my book *Ranching, Endangered Species and Urbanization in the Southwest* (published by University of Arizona Press in 2002) was the first comprehensive treatment of the valley's history and environmental geography. Subsequently I served on Pima County's Ranch Technical Advisory Team for the Sonoran Desert Conservation Plan, and was the lead author on the Team's report. We found that the Altar Valley was *the most important conservation priority* for long-term, comprehensive endangered species habitat preservation in Pima County, and therefore critical to compliance with the Endangered Species Act.

The Draft Environmental Impact Statement prepared for the project is, I believe, seriously flawed in numerous ways. Specifically:

- CO3-1 1. The proposed vegetation reclamation plan, although modest, is unrealistically optimistic. Restoring natural vegetation in the semi-arid desert grasslands of southeastern Arizona has proved exceedingly difficult, despite more than a century of dedicated scientific effort. The only perennial grass species likely to succeed is the non-native Lehmann lovegrass (*Eragrostis lehmanniana*), which is deemed invasive by the NRCS and disallowed for federally funded or authorized projects. The promise that "areas disturbed by pipeline construction would begin to resemble the surrounding area after at least 20 years" (page ES-7) is arbitrary, as there is no evidence in the scientific literature that 20 years is adequate to desert grassland vegetation recovery. It is also deeply disingenuous and duplicitous: after all, "after at least 20 years" literally promises nothing—it could mean 25 years, 50 years, or never!
- CO3-2 2. Even if vegetation recovery were ecologically possible, it would never actually occur due to border security issues. Recovery of vegetation cannot occur if even a small amount of vehicular traffic takes place on the pipeline right-of-way. Abundant experience throughout the US-Mexico border region

CO3-1 The statement that "areas disturbed by pipeline construction would begin to resemble the surrounding area after at least 20 years" is not a promise and is, as stated in the same sentence, based on visual simulations, which were conducted at specific locations. As acknowledged throughout the EIS and discussed in detail in section 4.4.8, some affected vegetation types may be re-established in 2 years or less; however, species richness may take longer to recover, ranging from an average of 2 to 13 years. Other vegetation types, however, are acknowledged to take an average of 76 years to obtain full establishment of perennial plant coverage and 215 years to recover species composition typical of undisturbed areas.

CO3-2 See responses to comments PM1-8 and LA1-97.

Z-226

CO3 – University of California, Berkeley, Department of Geology (cont'd)

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CO3-2 (cont'd) indicates unequivocally that the right-of-way will indeed be used, both for illicit purposes and by Customs and Border Patrol for border enforcement purposes. To pretend that any construction, monitoring or enforcement strategies are capable of eliminating such uses to zero is simply fanciful nonsense. The EIS effectively grants this in passing responsibility for managing "any possible increase in human trafficking, narcotic trafficking, and cross border-related illegal activity resulting from the Project" to the Border Patrol. In short, the vegetation reclamation and the right-of-way management components of the draft EIS are in contradiction with each other.

CO3-3 3. The Project's impacts on fire restoration would interfere with important conservation practices. The discussion of Fire Regimes on page 4-56 is wholly inadequate and misleading. It acknowledges the evolutionary role of recurrent fires in the southern (higher) portion of the Altar Valley, but it erroneously asserts that the relative absence of such fires in the recent past has turned the entire area into "non-fire tolerant scrub species." This is factually incorrect on three counts: 1) fire has been actively restored in much of the area, especially in the past 25-30 years; 2) perennial grass cover persists in much of the area; and 3) the scrub species in question (such as mesquite) are fire tolerant. The importance of fire for long-term grassland conservation and restoration is recognized by the valley's ranchers, the Buenos Aires National Wildlife Refuge, and scientists—indeed, fire restoration has been a unifying objective of conservation region-wide over the past several decades. It is hard to imagine how a natural gas pipeline—even a buried one—would not interfere with these efforts. At the very least, the Project should not be permitted unless the pipeline owner promises, in writing, to allow fire (both natural and prescribed) to play its evolutionary role in the valley forevermore and no matter what.

CO3-4 There are many other problems with the proposed project, including whether the much longer pipeline segment in Mexico will in fact be built and whether the economic rationality of selling natural gas there will be realized. Even putting those problems aside for the moment, it seems abundantly clear that the alternative that should be pursued—if the pipeline is to be built in the Altar Valley at all—is to route it alongside the existing highway all the way to the border. This would minimize or eliminate all three of the concerns listed above.

CO3-6 If the proposed route—which follows the highway for about one-third of the pipeline's length—was chosen due to the US Fish and Wildlife Service's determination that the pipeline is incompatible with the Buenos Aires NWR (as seems likely from the draft EIS), I would point out that this is a double standard that cannot be justified on scientific or ecological grounds. The private and state lands of the Altar Valley are every bit as important to the conservation of biodiversity and endangered species as the USFWS lands, and arguably more important (e.g., for the jaguar).

Countless private citizens and public agencies have invested significant time, effort, and money in conservation of the Altar Valley. Permitting the Sierrita Pipeline Project to be built there, especially along the proposed route, would be a reckless and foolish capitulation on the part of the FERC, allowing short-term private gain to take precedence over the public interest.

Sincerely,



Nathan F. Sayre
Associate Professor and Chair

CO3-3 The statement that "in some cases, scrub has completely taken over the grasses, such as with mesquite stands near Portal, Paradise, and Douglas, Arizona (Bennett et al., 2004)" has been removed. As discussed in section 4.4.8.2, prior to construction, Sierrita's land management and operations staff would coordinate with local managing agencies and landowners to discuss the schedule and procedures for prescribed fires in the vicinity or across the Project area. These discussions would also include best management practices and safety practices to be implemented near Sierrita's aboveground facilities.

CO3-4 Based on information obtained from local agency staff during a field visit in December 2013, the pipeline in Mexico is currently being constructed and construction is visible from the U.S.-Mexico border. Further, based on information from Sierrita, the Sasabe-Guaymas Pipeline in Mexico is anticipated to be ready for service by September 30, 2014.

CO3-5 See responses to comments PM1-4, PM1-9, and PM1-10.

CO3-6 The commenter's statement that private and state lands of the Altar Valley are as important to the conservation of biodiversity and endangered species as FWS lands is noted.

Also see response to comment PM1-10.

Z-227

COMPANIES AND ORGANIZATIONS

CO4 – Coalition for Sonoran Desert Protection

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Coalition for Sonoran Desert Protection

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December 16, 2013

Arizona Center for Law
in the Public Interest
Arizona League of Conservation
Voters Education Fund
Arizona Native Plant Society
Bat Conservation International
Cascabel Conservation
Association
Center for Biological Diversity
Center for Environmental
Connections
Center for Environmental Ethics
Defenders of Wildlife
Desert Watch
Drylands Institute
Empire Fagan Coalition
Environmental and Cultural
Conservation Organization
Environmental Law Society
Friends of Cabeza Prieta
Friends of Ironwood Forest
Friends of Madera Canyon
Friends of Saguaro National
Park
Friends of Tortolita
Gators Pass Area Neighborhood
Association
Native Seeds/SEARCH
Neighborhood Coalition of
Greater Tucson
Northwest Neighborhoods
Alliance
Protect Land and
Neighborhoods
Safford Peak Watershed
Education Team
Save the Scenic Santa Ritas
Sierra Club-Grand Canyon
Chapter
Sierra Club-Rincon Group
Silverbell Mountain Alliance
Sky Island Alliance
Sky Island Watch
Society for Ecological
Restoration
Sonoran Arthropod
Studies Institute
Sonoran Permaculture Guild
Southwestern Biological
Institute
Tortolita Homeowners
Association
Tucson Audubon Society
Tucson Herpetological Society
Tucson Mountains Association
Wildlands Network
Women for Sustainable
Technologies

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Re: Draft Environmental Impact Statement for the Planned Sierrita Pipeline
Project, Docket No. CP13-73-000 and Docket No. CP13-74-000.

Dear Ms. Bose:

These comments are being submitted on behalf the Coalition for Sonoran Desert Protection, Sky Island Alliance, Sierra Club – Grand Canyon Chapter, the Center for Biological Diversity and the Tucson Audubon Society in response to the *Draft Environmental Impact Statement for the Planned Sierrita Pipeline Project*; Federal Energy Regulatory Commission, Docket No. CP13-73-000 – Request for Certificate of Public Convenience and Necessity for the Sierrita Pipeline Project (authorization to construct and operate a 59 mile, 36-inch pipeline between Tucson and Sasabe); and Docket No. CP13-74-000 – Request for a Presidential Permit and authorization to construct new border crossing pipeline facilities and export of natural gas at the International Boundary between the U.S. and Mexico in Pima County, Arizona.

The Coalition for Sonoran Desert Protection (CSDP) is a coalition of 41 member groups representing tens of thousands of members.¹ The CSDP's mission is to achieve the long-term conservation of biological diversity and ecological function of the Sonoran Desert through comprehensive land-use planning, with primary emphasis on Pima County's Sonoran Desert Conservation Plan.

Sky Island Alliance (SIA) is a non-profit conservation organization dedicated to the protection and restoration of the rich natural heritage of native species and habitats in the Sky Island region of southeastern Arizona, southwestern New Mexico, and portions of Sonora and Chihuahua in northwestern Mexico. SIA works with volunteers, scientists, land owners, public officials, and government agencies to establish protected areas, restore healthy landscapes, and promote public appreciation of the region's unique biological diversity.

The Sierra Club is one of the oldest grassroots environmental organizations in the country with more than 2.1 million members and supporters nationwide and more

¹ A full list of CSDP member groups can be viewed at: <http://www.sonorandesert.org/about-the-csdp/members/>

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than 30,000 in Arizona. The Sierra Club's mission is "to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments." The Grand Canyon (Arizona) Chapter has long been committed to protection of Arizona's lands, wildlife, water, and communities and has been significantly involved in protection of the Buenos Aires National Wildlife Refuge (BANWR) and other public lands and important plant and animal habitat in southern Arizona. Sierra Club's members recreate and participate in restoration and research projects, including in the areas affected by this proposed pipeline.

The Center for Biological Diversity is a national non-profit conservation organization headquartered in Tucson, Arizona, with more than 625,000 members and supporters, more than 10,000 of whom reside in Arizona. The Center is dedicated to the protection of threatened and endangered species and their habitats. Our members have a keen interest in borderlands activities, and particularly their impacts on the species and places we work to protect, including the jaguar and its proposed critical habitat, which encompasses part of the project area in this case.

The Tucson Audubon Society (TAS) promotes the protection and stewardship of southern Arizona's biological diversity through the study and enjoyment of birds and the places they live. Founded in 1949, the Tucson Audubon Society has approximately 3,000 members. TAS is southern Arizona's leading non-profit engaging people in the conservation of birds and their habitats.

Summary

- CO4-1 The undersigned organizations urge the Federal Energy Regulatory Commission (FERC) to select the "No Action Alternative" because the proposed Sierrita Pipeline Project is not in the best interest of the American public, including our organizations' collective constituency. However, if
- CO4-2 the "No Action Alternative" is not selected, we believe that a Supplemental DEIS is warranted.
- CO4-3 As noted in previous comments, neither the Buenos Aires National Wildlife Refuge nor the Altar Valley are appropriate locations for this pipeline and FERC has not demonstrated that this proposed pipeline is in the interest of the American public. The stated purpose of the project, "to provide a reliable means of natural gas transportation service from the United States to Mexico" and to "...assist in meeting Mexico's projected energy demands and to promote Mexico's wide-scale initiative to transition from heavy fuel-oil to natural-gas-fired electric energy" is clearly focused on providing benefits to the project proponent and the Mexican public, while leaving the American public with extensive, significant and enduring negative environmental impacts.
- CO4-4 As members of the American public, and representatives of a large American public constituency, we disagree with the Draft Environmental Impact Statement's (DEIS) conclusion that the project "would result in limited adverse environmental impacts." For example, the DEIS finding that the project is likely to adversely impact the endangered Pima Pineapple Cactus is not "limited" in our view, but rather is cause for great concern. Further, we contend that the purpose and need for this project is unclear, and that FERC has inappropriately acceded to the
- CO4-5

- CO4-1 The commenter's preference for the No Action Alternative is noted.
- CO4-2 The Coalition's comment regarding a supplemental draft EIS is noted.
- CO4-3 See response to comment PM1-4.

- CO4-4 See response to comment NAT4-3.
- Sierrita's proposed mitigation measures along with our recommendations would reduce the Project-related impacts identified in the EIS. Further, FERC staff continue to consult with the FWS-AESO regarding impacts on the Pima pineapple cactus.
- CO4-5 See responses to comments PM1-4 and PM1-6.

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CO4-5 project proponent's unreasonably narrow terms to define the scope of this project, thus
(cont'd)
CO4-6 resulting in a DEIS with an inadequate range of reasonable alternatives to compare and select
CO4-7 from. We are concerned that, counter to the DEIS findings, the project is likely to adversely
impact and contribute to the further endangerment of other listed and proposed species,
including the jaguar, northern Mexican gartersnake, Chiricahua leopard frog, lesser long-nosed
CO4-8 bat, masked bobwhite quail, Sonoran desert tortoise and cactus ferruginous pygmy-owl. We are
especially concerned about the habitat fragmentation and disturbance the project will cause,
which will impair crucial wildlife linkages and wildlife movements. Furthermore, we are
CO4-9 concerned that many of the proposed mitigation measures, including the revegetation,
monitoring and weed control plans, are inadequate to prevent long-term negative impacts to
the land, hydrology, cultural resources, vegetation communities and wildlife of the
environmentally sensitive Altar Valley. Given these and other inadequacies in the DEIS, we
CO4-10 request FERC produce a revised or Supplemental DEIS for the public to review and comment on
before moving to a Final EIS.

I. The Project's Purpose and Need is Unclear, and Public Benefit and Necessity is Unsubstantiated

As part of an EIS, federal agencies are required to "specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action."² Agencies generally have considerable latitude when defining the purpose and need of a project. However, "an agency cannot define its objectives in unreasonably narrow terms."³ This is particularly true if that purpose and need is defined so narrowly as to "define competing reasonable alternatives out of consideration (and even out of existence)."⁴ When a private applicant provides the purpose and need, the agency is required to consider the applicant's private objectives; however, the private applicant is also not allowed to define the scope of the project in unreasonably narrow terms. In other words, "Requiring agencies to consider private objectives . . . is a far cry from mandating that those private interests define the scope of the proposed project."⁵ The Ninth Circuit Court of Appeals has repeatedly held that "agencies must look hard at the factors relevant to the definition of purpose.... Perhaps more importantly [than the need to take private interests into account], an agency should always consider the views of Congress, expressed, to the extent that the agency can determine them, in the agency's statutory authorization to act, as well as in other congressional directives."⁶

The FERC's statutory authorization here is governed by Sections 3 and 7(c) of the Natural Gas Act and the implementing regulations governing construction of new interstate natural gas pipeline facilities.⁷ Among other things, FERC must issue a Certificate of Public Convenience and Necessity for this project prior to it proceeding, which it can only issue if it finds that a project
CO4-11 "is or will be required by the present or future public convenience and necessity."⁸ In its

² *Id.* at § 1502.13 (emphasis added).

³ *City of Carmel-By-The-Sea v. United States Dep't. of Transp.*, 123 F.3d 1142, 1155 (9th Cir.1997).

⁴ *Simmons v. U.S. Army Corps of Engineers*, 120 F. 3d 664 (7th Cir. 1997).

⁵ *Nat'l Parks & Conservation Ass'n v. Bureau of Land Mgmt.*, 606 F.3d 1059, 1070 (9th Cir. 2009).

⁶ *Id.* (quoting *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C.Cir.1991).

⁷ 15 U.S.C. § 717f; 18 C.F.R. § 157.5.

⁸ 15 U.S.C. § 717f(c).

CO4-6

See response to comment PM1-6.

CO4-7

In accordance with section 7 of the ESA, the FERC, as the lead federal agency for the Project, and in coordination with the FWS, must ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of a federally listed threatened or endangered species or result in the adverse modification of the designated critical habitat of a federally listed species.

As discussed in section 4.7.1, we describe the primary threats to the jaguar and its designated critical habitat, northern Mexican gartersnake and its proposed critical habitat, Chiricahua leopard frog and its designated critical habitat, lesser long-nosed bat, masked bobwhite quail, Sonoran desert tortoise, and the cactus ferruginous pygmy-owl (although currently delisted), and address Project-related impacts from construction, including fragmentation. Sierrita proposed conservation measures for each of these species, outlined in their respective sections under section 4.7.1, that we determined would reduce potential impacts resulting from construction and operation activities to *may affect, but not likely to adversely affect* these species or their habitat.

The FWS has not yet issued the Biological Opinion for the Project. When the opinion is received, it would be available for viewing on the FERC website (www.ferc.gov) under Docket Nos. CP13-73 and CP13-74.

CO4-8

Section 4.5.3 describes the various wildlife linkages and wildlife movement corridors that have been mapped by the AGFD, Arizona Wildlife Linkages Workgroup, and Pima County, and the potential impacts of the Project's construction and operations activities on these areas.

CO4-9

Sierrita filed revised restoration plans since issuance of the draft EIS, which have been available for public review since December 2013. Sierrita's revised Plan, Procedures, *Reclamation Plan*, and *Post-Construction Vegetation Monitoring Document* are included as appendices of the final EIS.

We reviewed these plans and find them acceptable to reduce Project-related impacts identified in the EIS.

CO4-10

The Coalition's comment regarding a supplemental draft EIS is noted.

CO4-11

Sierrita addressed FERC staff's comments on draft Resource Reports 1 and 10 regarding the purpose and need of the Project in subsequent filings of its resource reports. We note that this was staff's effort to understand the objectives of the Project in order to develop our NEPA analysis. Further, we note that the facilities in Mexico are not under the jurisdiction of the FERC.

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CO4-11 (cont'd) comments on the first draft of El Paso Natural Gas's (EPNG's) Environmental Resource Reports 1 and 10, the FERC noted that EPNG had failed to provide sufficient information regarding purpose and need for this project, specifically failing to provide enough information regarding the "Puerto Libertad Pipeline Project" in Mexico, for which this project is allegedly being built to serve.⁹ The DEIS fails to rectify this dearth of information on the Mexican energy infrastructure that has allegedly created the need for this project in the specific location proposed (i.e. the Preferred Alternative through Sasabe and the Altar Valley).

CO4-12 The lack of detailed information in the DEIS regarding the Sasabe-Guaymas Pipeline (previously called "Puerto Libertad Pipeline Project"), which the Sierrita Pipeline Project (previously called the Sasabe Lateral Line) is intended to serve, renders the purpose and need for this project unclear. This lack of clarity has resulted in the project proponent defining the scope of this project in unreasonably narrow terms. The primary stated purpose of the Sierrita Pipeline Project is actually well stated: "to provide a reliable means of natural gas transportation service from the United States to Mexico." Yet, by contrast, the proposed project objective is overly narrow. Kinder Morgan claims without substantiation that the terminus of the U.S. project must be in Sasabe, Arizona. The expressed – but not evidenced – mandate provided by the private applicant that the project must be routed through Sasabe, Arizona has resulted in an overly narrow and unduly limited scope of alternatives under consideration. While we recognize that the planned energy infrastructure in Mexico directly associated with Sierrita's project are non-jurisdictional facilities and thus do not require detailed environmental impact analysis by FERC, the DEIS fails to explain basic information as to why IENova and Kinder Morgan have chosen Sasabe as the only possible take-up point, and, following that line of thought, why other potential take-up points in less environmentally sensitive areas along the U.S.-Mexico border are not equally viable and were not considered by IENova, Kinder Morgan, and FERC as alternatives in the DEIS.

The DEIS provides insufficient information regarding the public need for this project in the United States. In fact, it seems that this project serves no purpose for the United States' public at all, as virtually all of the benefits to America will be reflected in private profits for Kinder Morgan. The stated purpose of the Sierrita Pipeline Project, "to provide a reliable means of natural gas transportation service from the United States to Mexico" and to "... assist in meeting Mexico's projected energy demands and to promote Mexico's wide-scale initiative to transition from heavy fuel-oil to natural-gas-fired electric energy" is clearly focused on providing benefits to the project proponent and Mexican public, while the American public is left without benefit and holding the bag of extensive, significant and enduring negative environmental impacts.

CO4-13 **Recommendation:** The Supplemental DEIS should provide sufficient information about associated plans for energy infrastructure in Mexico (i.e. the Sasabe-Guaymas pipeline) that inform the project purpose and need, and must explain why take-up points aside from Sasabe were not considered or negotiated with IENova. If other take-up points can be negotiated, the

CO4-14 Supplemental DEIS should analyze a range of routes that would utilize these alternate take-up

⁹ Ltr. From Office of Energy Projects, Federal Energy Regulatory Commission, to Francisco Tarin, Regulatory Affairs Department Director, El Paso Natural Gas Company, *Comments on Draft Resource Reports 1 and 10* (July 30, 2012).

CO4-12 See responses to comments PM1-4, PM1-6, PM1-9, and PM2-3.

A project's need is established by the FERC when it determines whether a project is required by the public convenience and necessity. The FERC's Certificate Policy Statement provides guidance as to how the Commission evaluates proposals for new construction, and establishes criteria for determining whether there is a need for a proposed project and whether it would serve the public interest. The Certificate Policy Statement explains that in deciding whether to authorize the construction of major new pipeline facilities, the Commission balances the anticipated public benefits against the potential adverse consequences. The Commission's goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, avoiding the unnecessary exercise of eminent domain and disruptions of the environment.

CO4-13 See responses to comments PM1-6 and CO4-12. We note the objective of the proposed Project is to provide natural gas transportation services of up to 200,846 Dth/d to the U.S.-Mexico border near Sasabe, Arizona. The pipeline facilities in Mexico are not under the jurisdiction of the FERC.

CO4-14 See responses to comments PM1-4 and PM1-9.

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CO4-14 | points. Otherwise, a Supplemental DEIS should fully analyze other reasonable crossing points, (cont'd) such as Nogales, with the thought that the pipeline could go back to Sasabe, Sonora, rather than to force the pipeline to go back to Sasabe, Arizona.

II. The Supplemental DEIS Must Include an Adequate Scope of Reasonable Alternatives

The "Alternatives" section is considered "the heart of the [EIS]." ¹⁰ The National Environmental Policy Act (NEPA) requires all federal agencies to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." ¹¹ The Council on Environmental Quality (CEQ) regulations call on agencies to "[r]igorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated," "[d]evote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits," and "[i]nclude the alternative of no action." ¹² As courts have made clear, "NEPA requires that an agency must – to the *fullest* extent possible under its other statutory obligations – consider alternatives to its actions which would reduce environmental damage. That principle establishes that consideration of environmental matters must be more than a pro form ritual. Clearly it is pointless to 'consider' environmental costs without also seriously considering action to avoid them." ¹³

CO4-15 | As discussed above, the purpose and need for this project is unclear and has unreasonably limited the scope of alternatives considered in the DEIS, contrary to NEPA. There are some potential alternatives that should not be dismissed simply because a private applicant, with no supporting information, insists that the project have an unduly narrow scope. For example, it may be reasonable to locate this project through Nogales, Arizona instead of Sasabe, Arizona. Considering the existing EPNG-owned pipelines that runs down the I-19 corridor and the far fewer environmental impacts this alternative would likely have on the surrounding environment, this is an example of an alternative that should have, but was not analyzed in the DEIS. All of the alternatives analyzed in the DEIS end at Sasabe, and this does not meet the requirement to analyze a full range of reasonable alternatives. It may be possible to locate this project from existing or upgraded pipelines through Nogales, Yuma, or Douglas, Arizona and still meet the stated purpose and need for this project "to provide a reliable means of natural gas transportation service from the United States to Mexico."

Recommendation: FERC must analyze a full range of reasonable alternatives that will meet that purpose and need while reducing, to the greatest extent possible, the environmental damage caused by this project. The Supplemental DEIS for this proposal should include consideration of a full range of reasonable alternatives, to include routes with take-up points in other feasible locations that are less environmentally sensitive than Sasabe and the Altar Valley.

¹⁰ 40 C.F.R. § 1502.14.

¹¹ 42 U.S.C. § 4332(2)(E).

¹² 40 C.F.R. § 1502.14 (emphasis added).

¹³ *Calvert Cliffs Coordinating Committee, Inc. v. Atomic Energy Commission*, 449 F.2d 1109, 1128 (D.C. Cir., 1971).

CO4-15 | See responses to comments PM1-4, PM1-6, PM1-9, and CO4-12.

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III. Impacts to Affected Resources

A. Easement Clearing and Traffic Will Result in a Permanent Road

CO4-16 The easement proposed to be cleared down the length of the Altar Valley will, without a doubt, remain cleared of vegetation for the foreseeable future.

There are significant challenges to restoration in the southwestern U.S. due to the extremely arid nature of the region and in particular semi-desert grasslands where this project is proposed to be located. Restoration of roads is certainly possible in this region. However, the best available science and our on-the-ground restoration experience shows that in order to successfully restore a road back to its original state, it must be able to “rest,” and at a minimum must be protected from even intermittent traffic – sometimes for decades or longer – in order for native vegetation to re-establish and for the land to fully recover.¹⁴

Both border security activities and illicit activities are prevalent in Altar Valley, including significant undocumented cross-border traffic moving north as well as the associated security activities and patrols performed by the U.S. Border Patrol in this area. Because of the unique situation in this valley as it pertains to border security, it will be virtually impossible for the private applicant to restrict or adequately control the use of this easement once it is cleared. Pima County, Arizona, within which Altar Valley is located, concurs: “The 100-foot wide construction zone will, despite EPNG claims, endure for years because of the endemic arid conditions, the relatively low-stature of the existing vegetative community, and the slow pace of natural recovery when subjected to even infrequent vehicular travel; the pipeline alignment will become a de facto road.”¹⁵

The U.S. Border Patrol has a history of using these types of easements within the vicinity of the U.S.-Mexico border for patrol roads, particularly those with north-south alignments. For example, an EPNG-owned pipeline located southeast of Bisbee, Arizona is now a well-traveled road (see Appendix A). Based on conversations with local residents in the area, this road is frequently used by U.S. Border Patrol agents conducting regular patrols, as well as by undocumented migrants and other illicit cross-border activities. There are in fact many examples in this region of pipeline easements that have never been fully restored, despite promises made by the private companies who control the easement, including two other pipelines owned by EPNG and/or its parent company Kinder Morgan that run parallel to I-10 on both the north and south sides of the highway in the vicinity of the Cochise-Pima County border.

¹⁴ Bainbridge, David A. 2007. A Guide for Desert and Dryland Restoration: New Hope for Arid Lands. Society for Ecological Restoration. The Science and Practice of Ecological Restoration Series. Island Press, Washington DC. 391 pages.

¹⁵ Memo from Linda Mayro, Pima County Office of Sustainability and Conservation, to C.H. Huckelberry, Pima County Administrator, *Background & Issues of Concern – EPNG Sasabe Lateral Natural Gas Pipeline Project*, pp. 1-15, 3 (October 1, 2012) (emphasis added).

CO4-16

The Coalition’s comments regarding use of the right-of-way following construction are noted. Also see responses to comments PM1-8 and SA6-12.

It is unreasonable to expect that the U.S. Border Patrol would halt its activities to promote successful restoration.

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CO4-16 (cont'd) The DEIS states, "Continuous traffic along the right-of-way would result in reduced revegetation and restoration success, if not further deterioration of the disturbed area through road and/or trail formation. Road and trail formation disturbs and compacts soils resulting in increased wind and water erosion, tramples and removes vegetation, and may introduce and/or spread noxious and/or invasive species (Jordan, 2000; BLM, 2008). Furthermore, the area of impact could likely expand as unauthorized traffic from illegal activities ventures out from the right-of-way into adjacent areas, creating a system of trails." (DEIS, 4-61) These direct and indirect impacts are indeed significant, and due to the environmental context, may be unavoidable and unmitigable.

Kinder Morgan proposes to implement a number of measures to discourage unauthorized traffic from occurring on the easement, such as constructing barriers and mounds, excavating low areas, spreading hydro-axed vegetation across the right-of-way, placing whole, cut mesquite along the right-of-way, etc. While we appreciate a commitment to implement such measures and agree these measures could prevent the easement from becoming a high-speed road, we are unconvinced that these measures will reduce traffic to a level that will enable successful revegetation or prevent the establishment of a permanent road and the direct and indirect impacts that are likely to result from the establishment of such a road.

CO4-17 **Recommendation:** We urge FERC to select the no-action alternative, as the impacts associated with vegetation clearing and the establishment of a de-facto road in the easement will prevent revegetation from occurring and this new corridor will be a vector for numerous negative

CO4-18 impacts that are not in the public's best interest. However, if the project moves forward as proposed, we are supportive of noninvasive measures to prevent or discourage unauthorized traffic from occurring, to slow the speed of traffic and to protect sensitive areas such as riparian area crossings. However, we are opposed to any additional walls, vehicle barriers, etc. that would decrease landscape permeability for wildlife.

CO4-19 **B. Impacts to Affected Resources**

The impacts of vegetation clearing and roads have been well documented. In addition to negative impacts on wildlife, clearings and primitive roads damage soils, alter hydrology, vegetation, air quality, water quality, and archeological artifacts, and introduce noxious, non-native species where they often out-compete native species. The environmental effects of roads are not individual, but rather cumulative and synergistic because seemingly small, individual impacts may result in large scale changes in the reproductive success and survival of organisms, thereby altering the ecology of an area.¹⁶

Recommendation: The Supplemental DEIS must include a more robust assessment of all the potential direct, indirect and cumulative impacts resulting from this project, including, but not limited to, the resources and impacts we discuss below.

CO4-21 **1. Impacts to Species**

¹⁶ Kassir, Chris. 2005. *Motorized Recreation at a Crossroads: Lessons from the Past Converge with Management Practices of the Future, Off-road Vehicle Use on Public Lands*. Friends of the Inyo, Bishop CA. p. 12.

CO4-17 The commenter's preference for the No Action Alternative is noted.

CO4-18 The Coalition's support of measures to prevent or discourage unauthorized uses and protection of riparian areas is noted. Sierrita does not propose to construct or install walls or vehicle barriers to deter unauthorized use of the right-of-way that would decrease landscape permeability for wildlife.

CO4-19 The impacts associated with clearing and road use are discussed throughout the EIS.

CO4-20 See response to comment NAT4-3.

The EIS examines cumulative impacts in the context of how the proposed Project would contribute to the known impacts associated with the other projects identified in section 4.14.

CO4-21 We are considering the comment to mean "road" in the terms of access road. The proposed right-of-way is not a road, is not proposed as a permanent road, and the measures contained within the various plans submitted by Sierrita would prevent this right-of-way from becoming a road. Sierrita is proposing to use existing access roads for temporary right-of-way access during construction; although unsuitable access roads may be improved through grading and/or widening to allow for equipment and materials movement to the construction right-of-way. Impacts on vegetation from the use of access roads (i.e., soil compaction, dust deposition, introduction and transport of noxious weeds, increased access to Project area) are described in section 4.4.8. Impacts on wildlife species from use of access roads are discussed as appropriate in sections 4.5.2 and 4.7.1.

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CO4-21
(cont'd)

Numerous studies have explored the interactions between wildlife and roads. Many scientists suggest that road clearing and associated motorized recreation is the greatest threat to wildlife on our public lands because it can alter habitat, cause disturbance, and lead to the direct death of animals.¹⁷ Perhaps the most detrimental repercussions of roads include habitat fragmentation, restriction of wildlife movement and gene flow, harassment of wildlife, and increased human access to remote areas that serve as wildlife refuges.¹⁸ Habitat destruction from vegetation clearing and road construction breaks suitable habitat into smaller patches, which reduces its utility for many species and can even jeopardize the survival of certain species.¹⁹ "Edge effects" increase and are magnified in areas with small, isolated patches of habitat.²⁰ The "road effect zone," or the outer limit of a significant ecological effect, is caused by noise and pollution, and ground impacts extend beyond the footprint of the route prism.²¹

Habitat destruction and the spread of alien species are two of the greatest threats to biodiversity, and roads contribute to both of these factors.²² Approximately 15 percent of all endangered species are affected by roads.²³ Roads and trails affect terrestrial species through:

- Loss of habitat due to conversion of native vegetation to a particular road/trail surface (paved, gravel, dirt);
- Fragmentation of habitats due to road and trail system development and cross-country motorized travel off of system roads and trails;
- Interruption in migratory patterns of wildlife to reach breeding habitat or winter range;
- Lack of habitat use by wildlife due to disturbance caused by use of the road or trail system and cross-country motorized use; and
- Direct mortality due to vehicles.

CO4-22

According to the Arizona Game and Fish Department's (AZGFD) Heritage Data Management System, there are seven species federally listed as threatened or endangered in the Altar Valley watershed.²⁴ These include:

- Chiricahua leopard frog (*Lithobates chiricahuensis*)
- Yellow-billed cuckoo (*Coccyzus americanus*)
- Masked bobwhite (*Colinus virginianus ridgwayi*)
- Gila Topminnow (*Poeciliopsis occidentalis*)
- Jaguar (*Panthera onca*)
- Kearney's Blue-star (*Amsonia kearneyana*)
- Pima pineapple cactus (*Coryphantha scheeri* var. *robustispina*)

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.* at 14.

²⁰ *Id.* at 14.

²¹ Forman, Robert T. T., et al. 2003. *Road Ecology - Science and Solutions*. Island Press, Washington, DC.

²² Kassir at 14.

²³ Wilcove, D.S., D. Rothstein, J. Dubow, and A.L.E. Phillips. 1998. *Quantifying threats to imperiled species in the United States*. *Bioscience* 48:1-15.

²⁴ The Arizona Game and Fish Department's Heritage Data Management System can be accessed at: http://www.azgfd.com/lw_c/edits/species_concern.shtml

CO4-22

Table 4.7.1-1 presents and sections 4.7.1.1 through 4.7.15 discuss federally listed species that may be affected by the Project. Species in table 4.7.1-1 that are identified as not being impacted by the Project (i.e., No Effect) have been eliminated from further consideration and are not addressed further in the EIS.

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CO4-22 | • Nichol Turk's head cactus (*Echinocactus horizonthalonius* var. *nicholii*)
(cont'd)

CO4-23 | Additionally, there are 23 species considered "species of concern" by the U.S. Fish and Wildlife Service (USFWS) that occur in this watershed, including one species—the cactus ferruginous pygmy-owl – that is currently the subject of litigation over its federal listing status and may be re-listed in the near future. These species include:

- Lowland leopard frog (*Rana yavapaiensis*)
- Baird's sparrow (*Ammodramus bairdii*)
- Western burrowing owl (*Athene cunicularia*)
- Gray hawk (*Buteo plagiatus*)
- Cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*)
- Mexican long-tongued bat (*Choeronycteris Mexicana*)
- Pale Townsend's big-eared bat (*Corynorhinus townendii pallascens*)
- Greater western bonneted bat (*Eumops underwoodi*)
- California leaf-nosed bat (*Macrotus californicus*)
- Cave myotis (*Myotis velifer*)
- Yellow-nosed cotton rat (*Signmodon ochrogathus*)
- Pima Indian mallow (*Abutilon parishii*)
- Santa Cruz striped agave (*Agave parviflora* ssp. *parviflora*)
- Saiya (*Amoreuxia gonzalezii*)
- Large-flowered blue star (*Amsonia grandiflora*)
- Santa Cruz star leaf (*Choisya mollis*)
- Bartram stonecrop (*Graptopetalum bartramii*)
- Supine bean (*Macroptilium supinum*)
- Wiggins milkweed vine (*Metastelma mexicanum*)
- Giant spotted whiptail (*Aspidoscelis burti stictogrammus*)
- Redback whiptail (*Aspidoscelis xanthonota*)
- Texas horned lizard (*Phrynosoma cornutum*)

CO4-24 | Imperiled species most likely to be further endangered by this project include Pima pineapple cactus, jaguar, lesser long-nosed bat, northern Mexican gartersnake, masked bobwhite quail, Chiricahua leopard frog, Sonoran desert tortoise, and cactus ferruginous pygmy-owl. The jaguar

CO4-25 | and Northern Mexican gartersnake both have proposed critical habitat designations.²⁵ This project is likely to have significant impacts to jaguar habitat, particularly in light of the significant fragmentation this project is likely to cause in Altar Valley. Sky Island Alliance, the Center for Biological Diversity, Defenders of Wildlife and other Coalition member groups have strongly urged the U.S. Fish and Wildlife Service to include additional habitat in the Altar Valley area as part of the final critical habitat designation for the jaguar. Sky Island Alliance specifically recommended including the Mexico-Tumacacori-Baboquivari Linkage Design, which was identified and modeled through the AZGFD's *Pima County Connectivity Assessment*.²⁶

²⁵ Designation of Critical Habitat for Jaguar; Proposed Rule, 77 Fed. Reg. 50214 (August 20, 2012). ADD PROPOSED RULE OF PROPOSED NORTHERN MEXICAN GARTERSNAKE CRITICAL HABITAT.

²⁶ Information on the *Pima County Connectivity Assessment*, including related reports, can be accessed at: http://www.azgfd.gov/w_c/conn_Pima.shtml

CO4-23 | As discussed in section 4.7.1, species of special concern do not receive federal protection under the ESA. However, we analyzed Project-related impacts on the cactus ferruginous pygmy owl. Also, section 4.7.2 addresses state-sensitive species, which includes several federal species of special concern.

CO4-24 | See response to comment CO4-22.

CO4-25 | In accordance with the ESA, we are consulting with the FWS-AESO regarding the Project-related impacts on the federally listed jaguar. Section 4.7.1.1 addresses the jaguar and its designated critical habitat.

CO4 – Coalition for Sonoran Desert Protection (cont'd)

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CO4-25
(cont'd) Regardless of whether this area is officially added to the designation, the agency must consider the impacts to this important habitat and the implications this will have for jaguar recovery, as well as the impacts to all other listed and sensitive species in this area.

2. Habitat Fragmentation and Impacts to Wildlife Corridors

Vegetation clearing and road construction results in habitat fragmentation, which is one of the leading causes of species endangerment. Habitat fragmentation results from the cumulative bisection of natural landscapes by human developments, which cause habitat discontinuity or a reduction in habitat permeability (i.e. "connectivity"). The theory of Island Biogeography posits that species diversity is proportional to the size of habitat fragments or "islands," and in relation their distance or degree of separation from other habitat fragments or source populations. The DEIS states: "Clark (2011) conducted vegetation and associated vertebrate species distribution sampling at eight previously fragmented sites of various sizes and ages near Phoenix, Arizona. Three control sites were located in unfragmented Sonoran Desertscrub. Clark (2011) found that vegetation at the fragmented sites had become homogenized, regardless of the age of the site, with generally higher prevalence of grasses and creosotebush, and lower abundance of bursage and saguaro cactus." This is consistent with the theory of Island Biogeography. Therefore, the Sierrita Pipeline Project is likely to result in the loss of diversity, homogenization of the vegetation community and a loss in plant and animal diversity in the project footprint.

By definition, an intact healthy landscape allows wildlife to move between core areas of habitat where species, both plant and animal, have sufficient resources to survive, reproduce, and otherwise facilitate ecological processes. Plants and animals move across the landscape in many ways and for many complex reasons, and generally choose the most efficient or permeable movement corridors available on the landscape when connecting areas of suitable habitat. Poor connectivity between core habitats not only impacts large, far-ranging species, it can also significantly impact habitat specialists such as reptiles, rodents, ground birds, and others. When connectivity is impaired, it reduces opportunities for wildlife to fulfill life-history needs and exposes them to increased risks of predation and mortality. Large animals as well as smaller animals, and even plants, depend on local habitat connectivity to find mates, food and water resources, seed and pollen sources, as well as refugia.

CO4-27 In the Sky Island region where there is great elevational variation, protecting connectivity across gradients is particularly important in light of climate change, especially at the edge of many species' ranges. Construction of the Sierrita Pipeline will negatively affect connectivity between mountain ranges and across the entire Altar Valley. Animals move both north and south along the mountain ranges of the region and east and west across wide valleys, depending on life-history characteristics and responses to changing environmental conditions. Animals such as mountain lions, black bears, owls, tortoises and jaguars can have home ranges and/or dispersal distances that cover multiple mountain ranges and intervening valleys. The ability for these and other species to move across the landscape is paramount to their survival. "For fragmented populations, dispersal is key to survival...There is also strong theoretical

CO4-26 Comment noted. Sections 4.4.8 and 4.5.2 include a discussion of the potential impacts of the Project on vegetation and wildlife species and the proposed mitigation measures to address these impacts.

CO4-27 Comment noted. Section 4.5.3 includes a discussion of the potential impacts of the Project on wildlife corridors.

CO4 – Coalition for Sonoran Desert Protection (cont'd)

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CO4-27
(cont'd) support for the contention that the capacity for animals to move through the landscape is fundamental to conservation of natural ecosystems.”²⁷

The DEIS provides a map and a table that illustrate the project’s relationship to wildlife linkages that have been identified in statewide and county-level linkage assessments. The project crosses and will impact the integrity of nine identified and mapped linkages. The DEIS states: “Construction of the Project would contribute to further fragmentation of these and other unidentified wildlife movement corridors.” Indeed, vegetation clearing from the project will create habitat discontinuity in these corridors, while long-term increased human activity in the easement itself will also be a deterrent for use and crossing by some species. We illustrate the potential for the project to interfere with habitat connectivity by way of two imperiled species in the project area: the jaguar and the cactus ferruginous pygmy-owl.

Jaguar

In August 2012, the USFWS proposed to designate 838,232 acres in six units located in the Sky Island region of Arizona and New Mexico as critical habitat for the federally endangered jaguar. Sky Island Alliance provided detailed input on this proposal, advocating for a far more robust critical habitat designation, including additional east-west connectivity between units, in order to ensure meaningful conservation of the northern jaguar population. This east-west connectivity includes, but is not limited to, the Altar Valley of southern Arizona where the Sierrita Pipeline Project is proposed, which connects wildlife populations residing in the Atascosa and Tumacacori Mountains, with the Sierrita and Baboquivari Mountains. Movements between mountain ranges within jaguar home ranges, as well as dispersal movements to establish new territories, are crucial to the conservation and recovery of this endangered species.

The preferred alternative (West Route) bisects proposed jaguar critical habitat in two locations, impacting approximately 99 acres of proposed critical habitat. The project’s proposed removal of vegetation or “cover,” especially in riparian areas, has the potential to decrease jaguar utilization and movement. The project would likely impair east-west connectivity in the Altar Valley for the jaguar. The DEIS discloses that the preferred alternative would bisect Linkage 91 and Landscape Movement Corridor 19, both of which identify jaguar as a focal species. Furthermore, increased human activity, authorized and unauthorized vehicle traffic, and any night lighting along the easement and/or the project’s associated facilities is likely to result in avoidance of the surrounding area by any jaguar that may be present, potentially preventing east-west movements across the Altar Valley. East-west movements are likely already impaired by State Highway 286, while north-south movements between Mexico and the U.S. have been severely impaired by the construction of a border wall. Given the jaguar’s need for large, intact landscapes and the cumulative nature of habitat fragmentation, the proposed action (the West Route) is routed such that it may very well contribute to the further endangerment of this species, or at a minimum, be a net loss to the prospects of jaguar recovery in its northern

²⁷ Opdam, P. 1990. *Dispersal of fragmented populations: the key to survival*. pp. 3-17 in *Species Dispersal in Agricultural Habitats* (Eds. R.G.H. Bunce and D.C. Howard). Belhaven Press: London; Bennet, A.F. 2003. *Linkages in the Landscape: The Role of Corridors and Connectivity in Wildlife Conservation*. IUCN, Gland, Switzerland and Cambridge, UK. Xiv + 254 pp.

CO4-28 Wildlife linkages and impacts on them are discussed in section 4.5.3.
See response to comment CO4-25.

CO4-29 See response to comment CO4-25.

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CO4 – Coalition for Sonoran Desert Protection (cont'd)

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CO4-29 | range. Habitat connectivity provides an instructive lens to the impact of the proposed project
(cont'd) | on this commanding, elusive and endangered cat and its habitat.

CO4-30 | The DEIS states, "In the event that the proposed critical habitat become designated prior to initiation or completion of the Project, we are providing the conditional determination that the Project may affect, but is not likely to adversely affect jaguar critical habitat." Given the jaguar's sensitivity to habitat fragmentation and human disturbance, we disagree with this conditional determination.

Cactus ferruginous pygmy-owl

The USFWS published a final rule listing the Arizona Distinct Population Segment (DPS) of the pygmy-owl as endangered (62 FR 10730, March 10, 1997) effective on April 9, 1997. Since 2001, the legal status and designation of critical habitat has been in continual litigation and is still in legal limbo today.

Currently, most pygmy-owls in southern Arizona are found in Sonoran desert scrub, "In recent years, pygmy-owls have been primarily found in the Arizona Upland Subdivision of the Sonoran desert, particularly Sonoran desertscrub²⁸. This subdivision is limited in its distribution, forming a narrow, curved band along the northeast edge of the Sonoran Desert from the Buckskin Mountains, southeast to Phoenix, Arizona, and south into Sonora, Mexico. This subdivision is described as low woodlands of leguminous trees with an overstory of columnar cacti and with one or more layers of shrubs and perennial succulents. Some of the elements of this habitat type are present in the project area.

CO4-31 | The DEIS discloses that two pygmy-owls were detected in 2013 as close as 1,150 ft. to the edge of the project corridor and the USFWS reported that an active cactus ferruginous pygmy-owl nest has been identified in the Project area, recently fledging at least three young. A pygmy-owl home range is currently defined by the USFWS as 280 acres in size, based on Dr. Glenn Proudfoot's work in Texas. In areas of homogeneous habitat, this can be determined by a circle with a radius of 600 meters centered on the nest site or activity center of resident pygmy-owls. Initial results from ongoing studies in Texas indicate that the home range of pygmy-owls may also expand substantially during dry years²⁹. Therefore, it is certainly possible that pygmy-owls in and near the project will encounter the 100 ft. clearing and defacto roadway. The DEIS states, "Potential Project-related impacts on the cactus ferruginous pygmy-owl include reduction in suitable foraging and nesting habitat and noise and other disturbance that may alter behavior and spatial and temporal distribution of this species" (DEIS, 4-132).

Flight behavior of pygmy-owls suggests that they tend to fly short distances and avoid crossing large vegetation openings in single flights. In a study conducted by Flesch and Steidl³⁰, flight distances were typically short (<40 m). However, pygmy-owls were not limited to short flights. 3.2% of flights by radio-marked adults were >80 m with a few flights of >100 m. This same research found that pygmy-owls occasionally fly long distances and cross large vegetation

²⁸ Phillips et al. 1964, Monson and Phillips 1981, Davis and Russell 1984, Johnson and Haight 1985, Johnsgard 1988

²⁹ USFWS BO for the Tohono O'odham Nation 7/12/2005, p. 6

³⁰ Association Between Roadways and Cactus Ferruginous Pygmy-owls in Northern Sonora, Mexico, Final Report for the Arizona Department of Transportation.

CO4-30 | See response to comment CO4-25. In addition, on October 30, 2013, we provided the FWS our BA for the Project within the draft EIS. At that time, we entered into conference for proposed jaguar critical habitat. However, on March 5, 2014, the FWS published a final rule establishing critical habitat for the jaguar. The final rule takes effect on April 4, 2014. If the Project is approved, construction would take place within designated critical habitat after the effective date of the rule. Therefore, on March 5, 2014, we informed the FWS that we have updated our determination of effect for jaguar critical habitat to may affect, but is not likely to adversely affect. We are seeking the FWS' concurrence with this determination as a part of our section 7 consultation for the Project.

CO4-31 | The Coalition's comment regarding the cactus ferruginous pygmy-owl's range is noted.

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openings such as agricultural fields within home ranges and during natal dispersal. Despite the potential for longer flights, however, they were not common and areas with large vegetation openings likely deter owls and have consequences for movements. Flight patterns of pygmy-owls are typically U-shaped and involved dropping rapidly from perches and flying just above or through understory vegetation until ascending rapidly just before perching. Although this flight strategy is likely a result of lower predation risk from aerial predators, it imposes a relatively high risk of collision with vehicles because flights are usually near the ground. In another study, Flesch et al.³¹ reported that the odds of dispersal success were 92 times greater for owls that traversed landscapes with no disturbance compared with those with moderate disturbance, and vegetation gaps tend to slow movements or pose barriers to pygmy-owls and other nonmigratory birds.

CO4-32 | Given the flight behavior of pygmy-owls discussed above, it is clear that the proposed project could negatively impact habitat connectivity and dispersal success for pygmy-owls. The proposed action (the West Route) is routed such that it may very well contribute to the further endangerment of this species, or at a minimum, be a net loss to the prospects of pygmy-owl recovery in its northern range. The DEIS discloses that the preferred alternative would bisect Linkage 85, Linkage 91 and Landscape Movement Corridor 19, all of which identify pygmy-owl as a focal species. The DEIS states "These corridors may be important to connect isolated populations of pygmy-owls and maintain genetic diversity (Pima County, 2012c)" (DEIS 4-132). Habitat connectivity provides an instructive lens to the potential impact of the proposed project on this small and charismatic owl and its habitat.

CO4-33 | Given that habitat fragmentation is one of the proposed project's primary impacts, and is one of the leading causes of species endangerment, we suggest that FERC analyze this impact in more depth in the Supplemental DEIS, particularly for special status and imperiled species.

3. Impacts to Water Quality

Intermittent and ephemeral streams provide many of the same ecosystem goods and services as perennial streams.³² All streams are pathways for the movement of water, nutrients, and sediment throughout the watershed. Intermittent and ephemeral streams comprise a large portion of the stream network within watersheds. These features have greater relative moisture than the surrounding area, often stored in the ground. In addition, when these features erode and downcut, gullies can form. This leads to soil loss and the surrounding water tables get deeper. Where roads are in close proximity to stream channels, effects to these streams include increases in sediment and changes in morphology, especially where roads cross streams.³³ The Supplemental DEIS must assess the impacts to all waterways and arroyos in the project area, including the intermittent and ephemeral streams that feed the watershed. The DEIS states "... although the projects and activities identified in table 4.14-1 could potentially

³¹ Flesch, A.D., C.W. Epps, J.W. Cain, M. Clark, P.R. Krausman, and J.R. Morgart. 2010. Potential effects of the United-States-Mexico border fence on wildlife. *Conservation Biology* 24:171-181.

³² Levick LR, Goodrich DC, Hernandez M, Fonseca J, Semmens DJ, Stromberg J, Tluczek M, Leidy RA, Scianni M, Guertin DP, Kepner WG. 2008. *The ecological and hydrological significance of ephemeral and intermittent streams in the arid and semi-arid American Southwest*. U.S. Environmental Protection Agency and USDA/ARS Southwest Watershed Research Center, EPA/600/R-08/134, ARS/233046, 116 pp.

³³ Forman et al.

CO4-32 | Section 4.7.1.8 describes Sierrita's proposed mitigation measures to avoid adversely impacting the cactus ferruginous pygmy-owl. Section 4.5.2.1 addresses Project-related impacts on habitat fragmentation.

CO4-33 | The Coalition's comment regarding a supplemental draft EIS is noted.

CO4-34 | Sections 4.2.1.1 and 4.2.3.6 discuss erosion potential as a result of the Project and potential impacts on waterbodies, along with Sierrita's proposed mitigation measures to reduce erosion and sedimentation.

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CO4-34
(cont'd) contribute to surface water contamination, the commercial and infrastructure projects would also be expected to require implementation of best management practices to prevent and respond to spills during construction and operation activities" (DEIS, Water Quality, 4-229). The Supplemental DEIS must detail anticipated impacts to water quality, including accelerated erosion and resulting sediment loads.

4. Impacts to Soils

Soil compaction occurs quickly on undisturbed soils, but reaches a plateau where soils cannot compact much more.³⁴ Road surfaces, unauthorized routes, and trails reach this plateau. Changes to soil compaction affect the other properties of soil, including the ability to support vegetation, the amount of water that soaks into the soil, and soil biological processes.³⁵

Road surfaces are unstable because the soil of these roads is subject to compaction, rutting, and concentrated runoff. Areas adjacent to roads are also prone to instability from loss of vegetation, concentrated runoff from compacted road surfaces, and disturbance from use. Wind can also mobilize soil off the bare surfaces of roads and adjacent areas. The type of soil and site characteristics determines how easily soil is mobilized and eroded away. Wind erosion displaces soil into the air where it is transported downwind. When roads can recover and revegetate, erosion, soil loss, and sedimentation decrease except where gullies or other actively eroding features are located. In addition, the amount of road use is proportional to the amount of sediment that will be mobilized.³⁶

Exposed soil surfaces concentrate runoff which occurs on roads and trails resulting in higher erosion rates and soil loss.³⁷ Soil stability is decreased when erosion and soil loss are increased. The clearing of this easement and the subsequent traffic that will occur on the easement in perpetuity will affect the amount of erosion and sediment by changing the amount of use. The Supplemental DEIS must assess all impacts to soils, soil stability and mobilization that are likely to occur from the project's direct and indirect impacts.

5. Impacts on Cultural and Sacred Sites

The Altar Valley is brimming with archeological, historical and cultural resources, considered sacred by the Tohono O'odham Nation and many other Native Nations in the region. Cultural surveys thus far have identified numerous such resources, and it is likely that many more exist.

CO4-36 The Supplemental DEIS must identify the likely impacts to these resources from this project and work closely with the Tohono O'odham and other Native Nations in the region to ensure these resources are properly protected and impacts are mitigated to the satisfaction of affected Tribes.

³⁴ Ampoorter, E., L. Van Nevel, B. De Vos, M. Hermy, and K. Verheyen. 2010. *Assessing the effects of initial soil characteristics, machine mass, and traffic intensity on forest soil compaction*. Forest Ecology and Management, 260, 1664-1676.

³⁵ McNabb, D. H., A. D. Startsev, and H. Nguyen. 2001. *Soil Wetness and Traffic Level Effects on Bulk Density and Air-Filled Porosity of Compacted Boreal Forest Soils*. Soil Sci. Soc. Am. J., 65, 1238-1247.

³⁶ Sheridan, Gary J., Phillip J. Noske, Robyn K. Whipp, and Minal Wijesinghe. 2006. *The effect of truck traffic and road water content on sediment delivery from unpaved forest roads*. Hydrological Processes, 20, 1683-1699.

³⁷ Reid, Leslie M. and Thomas Dunne. 1984. *Sediment Production from Forest Road Surfaces*. Water Resources Research, 20 (11), 1753-1761.

CO4-35 Section 4.2.1.1 discusses erosion potential as a result of the Project, along with Sierrita's proposed mitigation measures to reduce erosion and sedimentation. As discussed in section 4.9.2, Sierrita proposed several restoration measures to deter use of the right-of-way following construction so that it is not used in perpetuity. Sierrita would not create nor maintain a road for its use along the permanent right-of-way. The EIS acknowledges that the proposed mitigation measures may not completely deter off-road vehicle use or pedestrian traffic along the right-of-way, but they may help to deter vehicular traffic.

CO4-36 Cultural resources surveys have been completed along the entire proposed Project's area of potential effect. Further, the FERC has consulted with federally recognized Indian tribes with an interest in the Project area, including the Tohono O'odham Nation.

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6. Impacts on Existing Land Management Plans

Pima County Sonoran Desert Conservation Plan

Pima County's Sonoran Desert Conservation Plan (SDCP) is a ground-breaking effort to conserve the most ecologically valuable lands and resources in Pima County. The SDCP addresses several elements of resource conservation, including cultural preservation, open space conservation, protection of mountain parks and natural reserves, ranch conservation, and ecological conservation. One key component of the SDCP that deserves evaluation in the EIS is the impact on the Maeveen Marie Behan Conservation Lands System (CLS). A critical subset of the CLS that will be impacted are lands that the County has acquired for conservation, known collectively as the Open Space Preserve System.

The CLS was constructed with participation and oversight by the SDCP Science Technical Advisory Team and according to the most current tenets of conservation biology and biological reserve design. The CLS emphasizes retaining areas that contain large populations of priority vulnerable species; providing for the adjacency and proximity of habitat blocks; preserving the contiguity of habitat at the landscape level; and retaining the connectivity of reserves with functional corridors. Through the application of these tenets, the CLS retains the diverse representation of physical and environmental conditions, preserves an intact functional ecosystem, minimizes the expansion of exotic or invasive species, maximizes the extent of roadless areas, and minimizes fragmentation.

The CLS consists of a map identifying the categories of environmentally-sensitive lands developed by the Science Technical Advisory Team, as well as an associated set of development guidelines and open space set-asides that have been integrated into the County's planning and zoning regulations and are required for development projects that are subject to a rezoning or other discretionary action. The CLS is part of the Environmental Element of Pima County's Comprehensive Land Use Plan's Regional Plan Policies.³⁸

CO4-37 CLS categories of land that would be potentially impacted by the Sierrita Pipeline Project include Important Riparian Areas, Biological Core Management Areas, Multiple Use Management Areas, and Special Species Management Areas. Pima County guidelines recommend various landscape conservation objectives for each of these CLS categories which must be analyzed in the Supplemental DEIS. While the DEIS does disclose and analyze the project's impact upon riparian habitats, including Important Riparian Areas, it fails to analyze impacts to Biological Core Management Areas, Multiple Use Management Areas and Special Species Management Areas (See Appendix B). Furthermore, the DEIS fails to analyze the project's impacts to the CLS as a whole biological reserve design.

³⁸ Available at:

[http://www.pimaxpress.com/Documents/planning/ComprehensivePlan/PDF/Policies_Legend/Regional%20Plan%20Policies%20\(pp.%2019-65\).pdf](http://www.pimaxpress.com/Documents/planning/ComprehensivePlan/PDF/Policies_Legend/Regional%20Plan%20Policies%20(pp.%2019-65).pdf)

CO4-37 Sections 4.4.2 and 4.4.8.2 address the MSCP and the Maeveen Marie Behan Conservation Lands System lands, and have been updated to clarify the conservation lands system area crossed and its guidelines.

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CO4-38 As mentioned above, an important element of the SDCP and the CLS is Pima County's Open Space Preserve System.³⁹ Specifically, the Northern Altar Valley Reserve represents a conservation investment of over \$8 million through the purchase of fee lands and the lease of State Trust and BLM lands. Impacts to this reserve and the voter-supported conservation investments they represent were not adequately analyzed in the DEIS, despite our request to do so in Coalition and Sky Island Alliance scoping comments dated October 25, 2012. Furthermore, this reserve and preserve system represents the backbone of mitigation lands for the County's forthcoming Multi-Species Conservation Plan (MSCP), including a Section 10 of the Endangered Species Act permit from the USFWS.⁴⁰ The DEIS does disclose the amount (119.4 acres) and location of mitigation lands that would be impacted, but fails to discuss how this would affect the MSCP itself, or if and how Pima County would be compensated for the loss of mitigation credit. The DEIS notes, "If the right-of-way does not provide habitat value for one or more species covered under the MSCP and if the right-of-way does not meet the standards or objectives outlined in the conservation lands management plan, Project-related impacts on the 119.4-acre area would be equal to approximately 29.9 acres of mitigation credits (i.e., 25 percent of 119.4 acres) that Pima County could lose" (DEIS, 4-161).

Altar Valley Conservation Alliance Fire Management Plan

CO4-39 The Altar Valley Conservation Alliance (AVCA) engages in a variety of conservation efforts designed to restore and conserve the entire Altar Valley watershed. Most notably, AVCA developed a landmark Fire Management Plan in 2008 in collaboration with a consortium of agencies and organizations, including the Natural Resource Conservation Service, the U.S. Fish and Wildlife Service and Buenos Aires National Wildlife Refuge, AZGFD, the Arizona State Land Department, the Arizona Date Forestry Division, Pima County Natural Resources, Parks and Recreation Division, and The Nature Conservancy.⁴¹ In Coalition and Sky Island Alliance scoping comments dated October 25, 2012, we highlighted the need for the DEIS to carefully assess the impacts this project may have on this Fire Management Plan. While the DEIS states Kinder Morgan is committed to working with land managing agencies and land owners to discuss the schedule and procedures for prescribed fires in the vicinity or across the project area (Fire Regimes section, 4-71), it fails entirely to analyze the impacts of the project on the AVCA's fire management plan.

Buenos Aires National Wildlife Refuge

CO4-40 The Buenos Aires National Wildlife Refuge (BANWR) is governed by the National Wildlife Refuge System Administration Act (16 USC 668dd et seq.), regulations promulgated by the USFWS and its Comprehensive Conservation Plan. Refuge staff conducts various management activities on refuge lands, including wildlife management, prescribed burning, revegetation, and erosion control measures. The DEIS states, "On March 5, 2013, the BANWR issued an Appropriateness Determination based on several decision criteria that concluded the East Route Alternative would not promote achievement of the mission of the NWRS or the purposes for which the BANWR was established. In its evaluation, the FWS concluded that the alternative would result

³⁹ *Protecting Our Land, Water and Heritage: Pima County's Voter-Supported Conservation Efforts*, February 2011. Available at: <http://www.pima.gov/cmo/admin/Reports/ConservationReport/>

⁴⁰ Pima County's MSCP documents available at: <http://www.pima.gov/cmo/sdcp/MSCP/MSCP.html>

⁴¹ *Altar Valley Fire Management Plan* 2008, Sept. 18, 2008. Available at: http://altarvalleyconservation.org/wp-content/uploads/pdf/Altar_Valley_Fire_Management_Plan.pdf

CO4-38 Sierrita would apply for all necessary federal, state, and local permits prior to construction. FERC staff expects that additional information or commitments by the land-managing agency necessary for it to process Sierrita's permit application (in addition to that described in the EIS) would be requested of Sierrita by the permitting agency during the permitting process or included as a permit requirement. Furthermore, Sierrita would need to comply with conditions or specific mitigation measures provided in non-federal agency permits, to the extent that such permits do not unreasonably delay, conflict with, or prevent implementation of federal requirements.

The value of Pima County fee lands, Pima County leased lands (from the ASLD), and state trust lands would be negotiated between the landowner or land-managing agency and Sierrita. These negotiations would determine the value of the land that Sierrita would obtain as easement from for its pipeline. For example, for state trust lands, Sierrita would make a one-time payment to the ASLD based on land values determined by an ASLD appraisal that would cover the cost of the 50-year right-of-way and temporary workspace necessary for construction. While Sierrita's permit applications are under review and an appraisal of land value is pending, it is possible that the agency could assign a value to the land that reflects the "cost" of placing a pipeline easement on it. The FERC does not engage in monetary negotiations between the company and the landowner or land-managing agency.

Section 4.8.2.2 addresses impacts on lands being proposed under a section 10 of the ESA permit.

CO4-39 As discussed in section 4.8.1.1, prescribed burns would be allowed to occur during pipeline operation. Therefore, we anticipate that the AVCA Fire Management Plan would be minimally impacted; however, prescribed burns in proximity to temporary construction activities and personnel might need to be modified for safety reasons during active construction.

CO4-40 The Coalition's comment regarding BANWR's pending review of Sierrita's request to use access roads owned and maintained by the FWS is noted.

Also see response to comment PM1-4.

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(cont'd) in unavoidable and/or significant impacts on cultural resources; conflict with the NHPA; disturb wildlife; disrupt migration; degrade and fragment habitat; affect threatened and endangered species; contribute to the spread of invasive species; alter hydrology; increase the risk of wildfire; contribute to border-related safety issues; be aesthetically displeasing; and impair wildlife-dependent recreation. The FWS concluded that such impacts would compromise the BANWR and as such, the East Route Alternative would not be appropriate. The FWS thus indicated that it would not authorize a route on the BANWR." Because of this determination, the proposed "East Route" that would have gone through the refuge can no longer be considered viable. Regardless if the impacts occur on or off of the refuge in the Altar Valley, BANWR's March 5, 2013 Appropriateness Determination is confirmation that the Sierrita Pipeline Project is not in the refuge or public's best interest. It is our understanding that although the "West Route" does not cross refuge lands, it does cross access roads owned and maintained by the BANWR, and thus an Appropriateness Determination for improving and utilizing these roads along the Sierrita Pipeline Project's West Route (DEIS preferred alternative) is now pending.

CO4-41 CEQ defines indirect impacts as "caused by the action and are later in time or are farther removed in distance, but are still reasonably foreseeable." Even though the Sierrita Pipeline will not be located on refuge lands, there is still a strong likelihood for indirect impacts to the BANWR. At its closest, the project is located as little as a few hundred feet away from the BANWR boundary, and proposes to "use and modify existing roads that cross the BANWR to accommodate construction vehicles and equipment to access the pipeline right of way." While the DEIS briefly discloses many of these impacts, it fails to analyze them in any depth to inform the public and decision makers as to the true potential impact to this National Wildlife Refuge. The Supplemental DEIS must provide a detailed analysis of direct and indirect impacts to the Buenos Aires National Wildlife Refuge and its management operations.

CO4-42 7. Economic impacts
The Supplemental DEIS must address the economic impacts this project is likely to have on local residents, the county and surrounding communities, and must include an assessment of both costs and benefits of this action. For example, if the West Route is built, Pima County estimates that it will incur an additional one million dollars per year to provide appropriate law enforcement services and maintain the stewardship of their open space properties⁴². While this project may result in a minimal number of jobs being created and some increased tax revenues for the county and state, it is also likely to have significant costs to ranching operations and the guest ranches and associated ecotourism in the area. The Supplemental DEIS must closely examine these and all other potential economic impacts, including any impact on the economic benefits now realized from the Buenos Aires National Wildlife Refuge, guest ranches, cattle ranches, vineyards, and other businesses in the valley.

V. The Supplemental DEIS Must Include an Analysis of Cumulative Impacts

The Supplemental DEIS must account for cumulative and connected actions associated with the proposed project. Under NEPA, the FERC must take a "hard look" at the effects of proposed

⁴² Pima County scoping comments dated October 25th, 2012

CO4-41 Section 4.8.2.1 addresses potential Project-related direct and indirect impacts on the BANWR.

Also see response to comment NAT4-3.

CO4-42 As discussed in section 4.8.4, impacts on recreation and special interest areas would be temporary and limited to the period of active construction, which typically would last only several days to several weeks in any one area, with the exception of the visual effects of cleared right-of-way, which would represent a long-term to permanent impact on recreationalists depending on the vegetation type and viewshed.

Section 4.10.6 discusses economic impacts of the Project on the economy and tax revenues, including updates per information from Pima County, as well as impacts on ecotourism and ranching.

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actions, including, "ecological, aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative."⁴³ A "cumulative impact" is one whose impact on the environment "results from the incremental impact of the Project when added to past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions."⁴⁴ Cumulative impacts "can result from individually minor but collectively significant actions taking place over a period of time."⁴⁵

When discussing the significance of an effect, the agency must consider both context and intensity, which includes determining "whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts."⁴⁶

An EIS must "catalogue adequately the relevant past projects in the area."⁴⁷ It must also include a "useful analysis of the cumulative impacts of past, present and future projects," which requires "discussion of how [future] projects together with the proposed . . . project will affect [the environment]."⁴⁸ The EIS must analyze the combined effects of the actions in sufficient detail to be "useful to the decision-maker in deciding whether, or how, to alter the program to lessen cumulative impacts."⁴⁹ "Detail is therefore required in describing the cumulative effects of a proposed action with other proposed actions."⁵⁰

- CO4-43 **Recommendation:** Cumulative impacts that must be considered as part of the Supplemental DEIS include 1) those impacts resulting from the construction of other past, present and reasonably foreseeable linear utilities proposed in this region, including proposed supporting facilities of the Sierrita Pipeline Project and unrelated energy projects such as the proposed SunZia transmission line, which recently released its DEIS, and the proposed Southline transmission line, which is expected to release a DEIS in the near future; 2) impacts from the development of natural gas resources that will be transported by this line, including those impacts resulting from the practice of "fracking" that are occurring across the country, as this practice will be supplying the natural gas that this project proposes to export; 4) impacts of existing and planned roads on private lands, state lands and other lands in the vicinity of this project that are already contributing to habitat fragmentation; 5) impacts resulting from new infrastructure needed to accommodate construction workers such as roads or housing; 6) border security related impacts, including the likelihood of the project exacerbating such impacts, and 7) impacts associated with climate change (see discussion below).
- CO4-44
- CO4-45
- CO4-46
- CO4-47
- CO4-48

⁴³ 40 C.F.R. § 1508.8.

⁴⁴ *Id.* at § 1508.7 (emphasis added).

⁴⁵ *Id.*

⁴⁶ *Id.* at § 1508.27(b)(7).

⁴⁷ *City of Carmel-by-the-Sea v. U.S. Dep't. of Trans.*, 123 F.3d 1142, 1160 (9th Cir. 1997).

⁴⁸ *Id.*

⁴⁹ *Id.* at 1160 (internal citations omitted).

⁵⁰ *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 810 (9th Cir. 1999). See *Neighbors of Cuddy Mountain v. U.S. Forest Service*, 137 F.3d 1372, 1379 (9th Cir. 1998); *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1214-15 (9th Cir. 1998).

CO4-43

Section 4.14 has been updated to include information regarding the proposed SunZia transmission line project. The Southline transmission line project is included as a reasonably foreseeable project listed in table 4.14-1 and is addressed in section 4.14.

CO4-44

FERC's authority under the NGA and NEPA review requirements relate only to natural gas facilities that are involved in interstate commerce. Thus, the facilities associated with the production of natural gas, such as hydraulic fracturing activities, are not under FERC jurisdiction. The development of these areas, which is regulated by the states, continues to drive the need for takeaway interstate pipeline capacity to allow the gas to reach markets. Therefore, companies are planning and building interstate transmission facilities in response to this new source of gas supply. In addition, many production facilities have already been permitted and/or constructed in various regions of the country, geographically remote from the Project area, creating a network through which natural gas may flow along various pathways to local users or the interstate pipeline system. If production facilities had been identified within a reasonable proximity to the Project, we would have considered them within the context of cumulative impacts in the Project area. Areas that are geographically removed from the Project and do not contribute to impacts within the Project area are not included in our cumulative impacts analysis.

Also, FERC cannot estimate exactly where the natural gas volumes would come from due to the interconnected nature of interstate natural gas transmission, and how much, if any, would be new production "attributable" to the Project. Sources which could produce gas that might ultimately flow to this Project might be developed in any part of the United States. Emissions associated with the end use (electric generation facilities) would be experienced in Mexico and are subject to that country's rules and regulations.

CO4-45

Project-related impacts resulting from the use and modification of existing roads is addressed throughout the EIS. Additionally, several road projects are included as reasonably foreseeable projects listed in table 4.14-1 and addressed in section 4.14. Section 4.14 (Environmental Setting) notes that road and trail use and formation disturbs and compacts soils resulting in increased wind and water erosion, tramples and removes vegetation, and may introduce and/or spread noxious and/or invasive species, and have made it difficult to re-establish native vegetation and have in several locations established trails that are easily susceptible to erosion and the formation of additional dry washes and gullies. Section 4.14 (Environmental Setting) has been updated to include fragmentation as an impact from these projects.

CO4-46

The Project would not require the construction or operation of new infrastructure (e.g., roads, housing) needed to accommodate construction workers, and therefore would not contribute to a cumulative impact specific to infrastructure.

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- CO4-47 Section 4.14.10 addresses cumulative impacts on illegal immigration and drug trafficking and border safety and security issues. This section was developed in consultation with the CBP based on its expertise in these matters.
- CO4-48 Section 4.14.14 addresses cumulative impacts on climate change.

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CO4-49 **Cumulative Impacts of Climate Change**

Recent warming in the southwestern U.S. is the most rapid in the nation and significantly more than global averages in some areas, with average temperatures in the region projected to rise by 2.5 to 5.5 degrees Fahrenheit by 2050.⁵¹ In Arizona, winter precipitation is already becoming more variable with a trend toward both more frequent extremely dry and extremely wet winters.⁵² On the global and national scale, precipitation patterns are shifting with more rain falling in heavy downpours that increase the risk of flooding.

In addition, decadal-scale Pacific Ocean circulation persistence can result in long-term drought, which can drastically reduce water supplies, as demonstrated in the extremely dry conditions between 1999 and 2005 and during the 1950s. The Southeastern Planning Area and the Active Management Area as defined by the Arizona Water Atlas (ADWR) experienced a total departure from normal of -27.6 inches and -35.1 inches respectively for the time period 1940-1960. While the current drought may reflect precipitation conditions similar to those of the 1950s drought, temperatures during the last decade are almost two degrees higher, and this warming trend will affect the severity of drought.⁵³

The effects of climate change will interact with existing stressors on the landscape and will generally exacerbate impacts to natural resources and reduce effectiveness of mitigation and reclamation/revegetation efforts, especially those that fail to take climate change impacts into consideration. Because of this, it is extremely important that the Supplemental DEIS consider the impacts associated with climate change as it conducts its cumulative impacts analysis for this project.

IV. The Supplemental DEIS Must Include a More Robust Discussion of Mitigation Commitments

NEPA requires that an EIS "[i]nclude appropriate mitigation measures not already included in the proposed action or alternatives."⁵⁴ Mitigation is a critically important requirement of NEPA. The Supreme Court has found that "omission of a reasonably complete discussion of possible mitigation measures" undermines NEPA and the ability to assess the severity of environmental impacts.⁵⁵ In addition to a full consideration of the potential impacts of the project, the agency must discuss measures to mitigate those impacts; it is implicit in NEPA's command and the CEQ's regulations. The omission of a reasonably complete discussion of mitigation measures would undermine NEPA's action forcing functions. Without such, interested parties cannot properly evaluate the severity of adverse impacts.⁵⁶

⁵¹ Karl, T. R., J. M. Melillo, and T. C. Peterson (eds.). 2009. *Global Climate Change Impacts in the United States*. Cambridge University Press.

⁵² *Id.*

⁵³ Arizona Department of Water Resources. 2009. Arizona Water Atlas. Accessed at <http://www.azwater.gov/AzDWR/StatewidePlanning/WaterAtlas/Volume1ExecutiveSummary.htm>

⁵⁴ 40 C.F.R. § 1502.14.

⁵⁵ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989).

⁵⁶ *Id.*

CO4-49

Section 4.14.14 addresses cumulative impacts on climate change.

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Mitigation measures must cover the range of impacts stemming from this project and must include such things as design alternatives, possible land use controls, and other efforts. "Once the proposal itself is considered as a whole to have significant effects, all of its specific effects on the environment (whether or not "significant") must be considered, and mitigation measures must be developed where it is feasible to do so."⁵⁷ The Supplemental DEIS must propose alternatives that decrease construction impacts, aesthetic intrusion, habitat fragmentation and destruction, adverse impact on endangered species and other species of concern, and human presence/interference. For example, the DEIS does not provide enough detail regarding how the project proponent will adequately mitigate the loss or impairment of proposed critical habitats, nor does it detail how impacts to Pima County's mitigation lands and open space will be mitigated for.

CO4-50

CO4-51

CO4-52

CO4-53

Recommendation: The Supplemental DEIS must include a thorough discussion of both on- and off-site mitigation strategies. Impacts should first be avoided to the greatest extent possible by siting in areas with low resource values, and then minimized and mitigated to the greatest degree possible through the use of best management practices and the best available technology, as well as innovative strategies for both on and off-site mitigation. It is highly likely that if this project moves forward, off-site mitigation will be necessary, since on-site mitigation of impacts will be difficult in light of the challenges of restoration in this region, and particularly in this valley given the border security context (see Sections III A and V). The Supplemental DEIS must provide details regarding the project proponent's commitments and requirements related to mitigating foreseeable, but potentially substantial indirect impacts to the Buenos Aires National Wildlife Refuge, minimizing and offsetting impacts to designated (currently proposed) critical habitat, direct take of individuals (e.g. as in the case of Pima pineapple cactus), Arizona State Trust Lands, and Pima County mitigation and open space lands.

V. The Proponent's Revegetation, Monitoring and Weed Control Plans are Flawed and Inadequate

As discussed in Section III A above, "restoration" of ecological values of the proposed route post-construction is impossible, given the certainty of continued vehicular and foot traffic along this newly proposed north-south corridor that is immediately adjacent to the US/Mexico international border. This proposed right-of-way (ROW) is located in one of the most actively traveled immigrant and smuggling corridors in the country. If a ROW is established at this location, it will be impossible to prevent constant vehicular and foot traffic associated with border crossing and law enforcement, not to mention pipeline operations and maintenance, from continually disturbing the soil. The constant disturbance would limit revegetation success in an already harsh environment, and bring new impacts to surrounding natural areas by: compacting soils; changing natural drainage patterns; and facilitating the invasion of non-native invasive plant species to previously un-infested areas.

The DEIS supporting documentation provided by Kinder Morgan regarding revegetation is grossly inadequate to mitigate the environmental damage that would be caused by this project.

⁵⁷ Forty Most Asked Questions Concerning CEQ's NEPA Regulations, 46 Fed. Reg. 18026 (March 23, 1981). See also 40 C.F.R. §§ 1502.14(f), 1502.16(h), 1508.14.

CO4-50

The following sections discuss potential impacts and the proposed mitigation measures to address these impacts: aesthetic intrusion (section 4.8.5), habitat fragmentation (section 4.5.2.1), endangered species and critical habitat (section 4.7.1), Arizona sensitive species (section 4.7.2), unauthorized access (section 4.9.2), critical habitat (section 4.7.1), and Pima County mitigation lands (section 4.8.2.2).

Also see responses to comments PM1-6 and PM1-17.

CO4-51

Sierrita's proposed mitigation measures are described throughout the EIS as well as in the construction and restoration plans included as appendices of the EIS. Also see responses to comments PM1-17 and PM1-24.

Other mitigation measures for areas located outside of the right-of-way, including off-site mitigation or compensation, would be negotiated between Sierrita and the landowner or land-managing agency during the easement negotiation and/or permitting process. We are not aware of any areas outside of the Project that would be affected or acquired for mitigation purposes.

CO4-52

Section 4.8.2.1 addresses potential Project-related indirect impacts on the BANWR. Sierrita would adopt the construction and restoration measures described in its Plan, Procedures, *Reclamation Plan*, and *Fugitive Dust Control Plan* to adequately minimize indirect impacts such as off right-of-way erosion and dust.

CO4-53

Refer to the following sections for a description of the proposed mitigation to minimize impacts on critical habitat: section 4.7.1.1 (designated jaguar critical habitat) and 4.7.1.6 (northern Mexican gartersnake proposed critical habitat), and section 4.5.1.3 (Chiricahua leopard frog designated critical habitat). Section 4.7.1.5 includes a discussion of proposed mitigation for direct take of Pima pineapple cactus.

Section 4.8.2.2 addresses Project-related impacts on state and county lands.

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There also appear to be loopholes embedded in them that allow Kinder Morgan to shirk their responsibilities.

- CO4-54 Below is a list of specific comments regarding Appendix G, the July 2013 draft of the *Long-Term Post-Construction Vegetation Monitoring Document*:
- CO4-55 1. **Overall** – Kinder Morgan and Sierrita are used interchangeably throughout the document. This is confusing.
- CO4-56 2. **Page G-1, first paragraph**: We object to the characterization of the proposed ROW as a “nominal 100 feet” – a 60-mile swath 100 feet wide equates to over 700 acres. Although this may be considered “nominal” for pipeline construction and maintenance, it is not nominal from an ecological perspective and as such is inappropriate terminology.
- CO4-57 3. **Page G-1, second paragraph**: Clarify that monitoring of revegetation would include not just the ROW corridor, but also extra work-space areas, pipe storage yards, borrow and disposal areas, access roads, and other areas disturbed by construction.
- CO4-58 4. **Page G-1, second paragraph (first sentence)**: Modify to read: “...lands managed by the Arizona State Land Department (ASLD) as well as private lands crossed by the Project.” Revegetation and monitoring protocols and requirements should be consistent throughout the proposed project area – that is, the same on both ASLD and private lands, unless private land owners request *more rigorous* procedures. Excepting private lands unless the landowner requests inclusion is an unacceptable loophole allowing Kinder Morgan to shirk responsibilities.
- CO4-59 5. **Page G-1, third paragraph**: The Sonoran Desert has a bi-modal precipitation pattern that results in two growing seasons per year, each with a unique set of plant species. Ideally, monitoring would occur during both seasons (spring and late summer/monsoon/fall) to adequately capture the full diversity of native and non-native species in the Project area. One approach could be to do the full monitoring in the late summer/monsoon/fall and to supplement with qualitative spring floristic observations. At the very least, the monitoring season(s) should be explicitly defined in this document.
- CO4-60 6. **Page G-1, third paragraph**: Both cover and diversity should be considered in the success criteria.
- CO4-61 7. **Page G-1, third paragraph**: Please define who will be responsible for conducting the monitoring. We suggest the following guidelines as minimum requirements:
- Monitoring should be conducted by an independent third party.
 - Personnel should hold at least a Bachelor’s degree in botany, range science, or other vegetation-related science field.
 - Personnel should be able to demonstrate knowledge of local flora prior to fieldwork, including the identification of the range of native and non-native plant species expected to be encountered onsite. Personnel should be qualified to identify unknown plant species with a regional dichotomous key and/or herbarium work.
- CO4-62 8. **Page G-3 and throughout**: We object to the use of the term “restoration” to characterize revegetation of this proposed project. Restoration is not possible in this context, when the ROW would be certain to be continually disturbed through the actions of required operations and maintenance of the pipeline, immigrant travel, and law-enforcement activities of Border Patrol and others. Conduct a global search for the word restoration and replace it with revegetation or omit it.

CO4-54

The *Reclamation Plan* and *Post-Construction Vegetation Monitoring Document* have been developed by Sierrita and are not FERC documents, although we reviewed them to ensure they meet acceptable thresholds and standards to reduce Project impacts. While we recognize that sound scientific methods are appropriate, we note that it is at Sierrita’s discretion to make changes recommended by parties other than landowners and land-managing and/or permitting agencies. We note, however, that FERC is the lead federal agency that would oversee construction and restoration of the Project. As such, FERC would oversee Sierrita’s compliance with its construction procedures and mitigation measures described in its applications and supplements including responses to staff data requests and as identified in the EIS, unless modified by any Order, and ensure that Sierrita fulfills the intent of its various Project-related plans. Sierrita would also be legally required to comply with any Project requirements as agreed to or conditions included as a part of any Order issuing Certificate. If Sierrita does not meet FERC regulations and requirements that apply to the Project, FERC has authority to stop work or to refer the matter to its Office of Enforcement.

CO4-55

The Coalition’s comment regarding the use of Kinder Morgan and Sierrita interchangeably in the *Post-Construction Vegetation Monitoring Document* is noted. Sierrita is an affiliate of EPNG, which is owned by Kinder Morgan.

CO4-56

Based on clarification from Sierrita, the term “nominal” is used in the document in reference to existing as something in name only because the proposed right-of-way is not consistently 100 feet wide.

CO4-57

Monitoring would occur within the Project area (areas disturbed by construction). Access roads would be monitored following different protocols (see section 5.2 of the *Post-Construction Vegetation Monitoring Document*). Sierrita would be required to restore all areas to pre-construction conditions except where requested by the landowner or land-managing agency and at permanent aboveground facilities where the land use would change.

CO4-58

Sierrita revised its *Post-Construction Vegetation Monitoring Document* to include private lands if requested by the landowner.

CO4-59

Sierrita’s revised *Post-Construction Vegetation Monitoring Document* states that monitoring would begin in the late summer following construction and after all seeding and transplanting efforts are complete, and would continue annually for at least 5 years. Both seeding and transplanting efforts would be monitoring in late summer to assess annual growth inclusive of both winter and monsoon growth.

Sierrita committed to evaluating the addition of spring monitoring based on consultations with the NRCS on seed mixes that represent both the spring and late summer/monsoon/fall growing seasons. We recommended in section 4.4.8.2 of the final EIS that prior to construction Sierrita file revised versions of its *Reclamation Plan* and *Post-Construction Vegetation Monitoring*

CO4 – Coalition for Sonoran Desert Protection (cont’d)

CO4-59 (cont’d)	<i>Document</i> that identify Sierrita’s final seed mixes and rates developed in consultation with the NRCS and based on proposed seeding schedule(s).
CO4-60	Section 5.1.1 has been updated to include species composition, frequency, density, and dominance as performance criteria.
CO4-61	The Coalition’s comments regarding monitor qualifications are noted. Sierrita would be responsible for selection of its EIs, who, as noted in Sierrita’s Procedures would have “knowledge of the wetland and waterbody conditions in the project area.” FERC would select its own third-party monitors.
CO4-62	It would be inappropriate to replace restoration with revegetation throughout the final EIS. As explained in section 5.0 of Sierrita’s <i>Reclamation Plan</i> , revegetation is one component of restoration of the right-of-way. As section 5.0 of the Plan explains, “Restoration of the right-of-way following pipeline installation involves backfilling the excavated trench, replacing stockpiled subsoil and topsoil, restoring pre-existing contours, installing permanent erosion control structures (e.g., water bars/slope breakers), and establishing native vegetation as described in the following sections.” Sierrita’s plan for revegetation is further described in section 6.0 of the Plan.

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- CO4-63 9. **Page G-4, third paragraph:** A full inventory of saguaros and all other native cacti and succulents (including but not limited to barrel cactus, hedgehog cactus, the federally-endangered Pima pineapple cactus, night-blooming cereus, and others) in the ROW should be conducted and included as the basis for a detailed salvage plan. Clear protocols for salvage and storage should be included, as well as mitigation standards for plants that cannot be salvaged. We recommend using the Pima County Native Plant Preservation Ordinance as a guide for mitigation standards that are acceptable in this region.
- CO4-64 10. **Page G-5, first paragraph:** “The goals of the Project’s post-construction monitoring program are to document that the revegetated plant communities restoration objectives, and noxious and invasive weed abatement objectives are being achieved...” The goal is **not** to document achievement. The goal is to document the actual response to revegetation and treatment, and if milestones are not being met, to adaptively manage if necessary to achieve the goals. This is a subtle, yet important, distinction. Similarly, in the third sentence, “to discuss restoration and revegetation success” should be changed to: “to discuss revegetation performance relative to performance criteria.”
- CO4-65 11. **Page G-5, first paragraph, last sentence.** Kinder Morgan should be held accountable for revegetation success throughout the project area, despite the fact that monitoring plots are at particular locations. The monitoring should reflect what is occurring throughout the project area; if it is not, Kinder Morgan should still be held accountable for results. This is better stated in the third paragraph on this same page.
- CO4-66 12. **Page G-6, Monitoring Approach:** The monitoring design should include wash crossings. Washes are critically important to watershed health and as wildlife corridors. Also, as per previous comment, spring is not the appropriate time to monitor grassland vegetation; native grasses are most active in response to summer rain.
- CO4-67 13. **Page G-6, Upland ROW Monitoring:** The seed mix presented in Table 1 is **not** “ecological[ly] site specific.” A single seed mix for a 60-mile linear project cannot possibly be described as site-specific. Seed mixes should be developed based on the diversity of adjacent native vegetation, and distributed along the ROW based on vegetation community. Further, five species included in the seed mix were not even documented in the project area according to Appendix S: *Baileya multiradiata*, *Sphaeralcea ambigua*, *Penstemon sp.*, *Desmanthus cooleyi*, and *Echinocereus triglochidiatus*. Seed mixes should consist of species that commonly occur in the pre-construction project area; either Appendix S is lacking common species, or the seed mix was developed without consideration for species known to exist in the project area.
- CO4-68 14. **Page G-7, Table 1 (seed mix):** The project area should be mapped by vegetation community and seed mixes should be developed for each vegetation community, based on observed native species present onsite. Application of one overall mix is not acceptable. This plan should include a map of the vegetation communities and applicable seed mixes. Seed mixes should include a very high diversity of native species, including suites of annuals and perennials that respond during both precipitation periods; the seed mix presented is very low in diversity. Will different mixes be necessary for the permanent versus temporary ROW (e.g., inclusion of shrubs)?
- CO4-69 15. **Page G-7, Table 1 (seed mix):** It is unusual to include cacti in a revegetation seed mix; we recommend salvaging these plants and replanting them at appropriate locations, along with potential inclusion of nursery-grown material.

CO4-63

Sections 4.4.4 and 4.4.8.2 include discussions on Arizona native plants. Sierrita conducted field surveys to identify native plants protected by the ADA on state-owned lands. Sierrita estimates that the total number of protected and other Arizona native plants located within the 50-foot-wide permanent right-of-way is 34,818 plants. In addition, 142 Pima pineapple cactus were identified by Sierrita within the Project study area, of which 97 were within the pipeline construction workspace, and 2 were within 25 feet of access roads (see section 4.7.1.5).

In addition, Sierrita committed to avoiding Pima pineapple cactus and saguaro cactus, where practicable, and transplanting these species onto or adjacent to the right-of-way where avoidance is not possible. In addition, Sierrita would assess approximately 50 percent of the *Agave parviflora* found on the right-of-way and transplant the healthy and viable plants (approximately 30 percent) adjacent to the right-of-way. Sierrita revised its *Post-Construction Vegetation Monitoring Document* to describe the salvaging and transplantation procedures for these species.

CO4-64

Sierrita revised its *Post-Construction Vegetation Monitoring Document* accordingly.

CO4-65

Sierrita revised its *Post-Construction Vegetation Monitoring Document* to state that Sierrita remains responsible for overall restoration of the right-of-way. Should Sierrita personnel, agency personnel, or members of the public identify specific areas of concern not included in the monitoring program, Sierrita committed to assessing the success of the restoration at such locations and taking corrective action if agreed is necessary with the ASLD or landowner.

CO4-66

Sierrita revised its *Post-Construction Vegetation Monitoring Document* to include 10 riparian habitat monitoring plots.

CO4-67

Table 6-3 of the revised *Reclamation Plan* provides seed mix, seeding method, and seeding timing by milepost.

CO4-68

Table 6-3 of the revised *Reclamation Plan* provides seed mix, seeding method, and seeding timing by milepost. Sierrita committed to consulting with the NRCS on the use of ESDs in the planning of revegetation and monitoring activities prior to construction. We recommended in section 4.4.8.2 of the final EIS that prior to construction Sierrita file revised versions of its *Reclamation Plan* and *Post-Construction Vegetation Monitoring Document* that identifies Sierrita’s final seed mixes and rates developed in consultation with the NRCS and based on proposed seeding schedule(s), and associated updates to the number and location of monitoring plots.

CO4-69

Sierrita revised its *Post-Construction Vegetation Monitoring Document* to include the salvaging and transplantation of Pima pineapple cacti, saguaro cacti, and agave species.

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- CO4-70 16. **General:** We recommend the inclusion of nursery-grown container plants. Appropriate drylands revegetation materials could include tallpot plant materials, the use of DriWater irrigation supplement, and planting in basins to encourage water harvesting for plant establishment. A full species list by vegetation community would be helpful to create appropriate planting palettes. The Pima County Native Plant Nursery would be an excellent source of information.
- CO4-71 17. **Page G-7:** Clarify how it was determined that 20 sites would be an adequate sample size to accurately measure revegetation performance. Clarify how these sites will be chosen – randomly? Stratified random design? *Proposed monitoring locations should be chosen upfront and presented in this plan for adequate review.*
- CO4-72 18. **Page G-8, first full sentence:** "Prior to conducting monitoring activities, Sierrita will inspect each monitoring sites [sic] to determine if they could be disproportionately impacted from proximity to such things as concentrated livestock grazing areas and water facilities, or off-highway vehicle (OHV) use. If it is determined that they will be impacted, the site will be shifted or moved." *It is wholly unacceptable to purposefully exclude areas that are experiencing degradation from the monitoring process – this is unabashedly biasing data collection to fraudulently "achieve" goals.*
- CO4-73 19. **Page G-8, Figure 2:** This figure is very confusing; please reformat for clarity and remove reference to previous project (e.g., Ruby right-of-way). Colors may be helpful in visually depicting the plot and transect arrangement.
- CO4-74 20. **General:** The correct term is *quadrat*, not quadrant.
- CO4-75 21. **Page G-8, second paragraph:** Monitoring sites should be randomly selected in the office and measured regardless of "unforeseen excessive disturbances." Because of the nature of this proposed project, there are not likely to be locations without excessive disturbance. An adequate, randomly-selected sample size (i.e., likely more than 20 monitoring sites) would normalize any anomalous data.
- CO4-76 22. **Page G-8, footnote:** Details regarding a plan to make the ROW inaccessible to vehicles need to be included in this document, as well as in the revegetation plan, given the unique geography and orientation of this project. Clarify that monitoring personnel would be accessing monitoring sites by foot and provide access information.
- CO4-77 23. **Page G-9, first paragraph:** Clarify that the control plots will be measured with the same methods as the monitoring plots.
- CO4-78 24. **Page G-9, second paragraph:** "However, if the plots at a monitoring site become unacceptable for continued monitoring, because of some event such as grazing, flooding, or wildfire, then new plots would be established. If the other plots cannot be successfully relocated, then other options would be explored with FERC and ASLD. One such option would be monitoring site abandonment." *Cattle grazing on ranch lands is not an event – it is a land use, and one that is sure to continue in the project area.* By the logic presented above, monitoring plots could be abandoned on lands under their current management regime. This is an unacceptable loop-hole that should be removed. Firstly, monitoring plots should not be moved because you don't like the results you are getting. Secondly, they should not be allowed to be discontinued due to the current known land use.
- CO4-79 25. **Page G-11, Table 2:** Pedestrian traffic should be included in this table of potential impacts.

- CO4-70 See response to comment SA6-7.
- CO4-71 Sierrita revised its *Post-Construction Vegetation Monitoring Document* to clarify that Sierrita would randomly select monitoring sites in 20 non-riparian areas and 10 riparian areas.
- CO4-72 As discussed with the agencies, this statement is to provide a means to ensure that the initial location of the plot it is not within an existing road, livestock tank approach, or other manmade feature.
- CO4-73 Sierrita revised its *Post-Construction Vegetation Monitoring Document* with a reformatted Figure 2 that removes references to previous projects.
- CO4-74 Sierrita revised its *Post-Construction Vegetation Monitoring Document* to globally revise the term "quadrant" to "quadrat."
- CO4-75 See response to comment CO4-71.
- CO4-76 See response to comment SA6-15.
- CO4-77 Sierrita revised its *Post-Construction Vegetation Monitoring Document* to clarify that the control plots would be measured with the same methods as the monitoring plots.
- CO4-78 The intent of this methodology is to eliminate sites that are not representative of the overall condition of the right-of-way. Sierrita would relocate sites up to 300 feet to a location that would provide better representation of the overall condition of the right-of-way. For example, if a random plot was located immediately adjacent to a livestock tank, access road, or similar feature, Sierrita would shift and relocate the plot to a new location, up to 300 feet, due to the fact that the original random plot site would not be representative of the overall condition of the right-of-way.
- CO4-79 Sierrita revised its *Post-Construction Vegetation Monitoring Document* to include pedestrian traffic in Table 2 as a potential impact.

CO4 – Coalition for Sonoran Desert Protection (cont'd)

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- CO4-80 26. **Page G-11, Succulent Planting Areas:** All cacti and succulents should be salvaged and transplanted, not just saguaros and agaves. This would improve species diversity values for monitoring.
- CO4-81 27. **Page G-12, Succulent Planting Areas:** Include reference to Appendix G-B. Two years of monitoring is not sufficient to assess whether transplanting has been successful; saguaros can remain alive but moribund for as much as a decade following root damage incurred during transplanting. Saguaros can survive on stored water and metabolites for a long time before dying.
- CO4-82 28. **Page G-12, Table 4:** This information should be presented with a map and summary table by species. This detailed table would be more appropriate as an appendix, or just reference that it appears in Appendix H.
- CO4-83 29. **Page G-18:** "It should be noted that repeated control measures are not always considered successful for certain weed species that are already well established and abundant...For this reason, the certain widespread invasive species that are not legally considered noxious, such as Russian thistle, would not be treated unless treatment is needed to ensure the success of Project restoration and revegetation efforts." This ROW would be a super-highway for weeds. Maximum effort is required to suppress all weed species (remove their competitive advantage) to achieve establishment of native plants. ***The logic presented above would allow a heavily-infested area to remain untreated, allowing the weeds to disperse along the ROW to previously un-infested areas. This is an unacceptable approach.***
- CO4-84 30. **Page G-18:** "A weed population will be treated if the percent cover is greater within the ROW than the percent cover of the same species outside of the ROW." See comment above, this is not an acceptable approach. All weeds within the ROW should be treated.
- CO4-85 31. **Page G-19:** "...Sierrita will control weed densities on the ROW to a level that is at or below levels in adjacent areas." See comments above, this is not an acceptable approach. In the interest of achieving performance criteria, all weeds within the ROW should be treated.
- CO4-86 32. **Page G-19:** This plan sets a very low bar for actual management and revegetation success. To suggest that 25% relative cover of non-native invasive species is acceptable is irresponsible.
- CO4-87 33. **Page G-20:** "The need for treatment will be determined based on the relative cover of noxious or invasive weeds on the ROW, the potential to inhibit desirable plant establishment, and weed cover adjacent to the ROW..." ***The need for treatment should be based on presence alone. This plan proposes to spend quite a bit of time and effort documenting all the reasons why invasives should not be treated according to a myriad of loopholes. That time would be better spent actually treating invasives.***
- CO4-88 34. **Page G-20:** "The performance criteria must accommodate the inherent variability of restoring native vegetation and be applicable to the several different kinds of upland plant communities across the project." This statement supports the following two points:
- Monitoring must include all inherent variability, including areas subject to grazing and ORV use.
 - There are several different upland plant communities across the project. They should each have customized seed mixes and be independent sampling units.

- CO4-80 Sierrita revised its *Post-Construction Vegetation Monitoring Document* to incorporate the salvaging and transplantation of Pima pineapple cactus, Palmer's agave and *Agave parviflora*.
- CO4-81 Standard Operating Procedures for Saguaro Cactus and Palmer's Agave Monitoring have been included by Sierrita as Appendix B to the *Post-Construction Vegetation Monitoring Document*. Sierrita also revised its Plan to specify that Sierrita would monitor transplanted saguaro cactus for at least 5 years following transplanting.
- CO4-82 Section 4.4.5 of the final EIS includes a summary table and figures.
- CO4-83 Sierrita committed to managing non-native species and noxious weeds as classified by the ADA as prohibited, regulated, and/or restricted in accordance with Arizona Administrative Code R3-4-244 and R3-4-245. Section 4.4.5 describes the 11 non-native species that were identified within the Project area during noxious weed surveys, of which 5 species are identified by the ADA as prohibited, regulated, and/or restricted noxious weeds. The potential spread of these weeds would be controlled by implementation of Sierrita's *Noxious Weed Control Plan*.
- CO4-84 Section 4.4.8.2 of the final EIS acknowledges that land-disturbing activities such as construction of the Project may facilitate the spread of noxious weeds. Sierrita would implement the measures provided in Sierrita's *Noxious Weed Control Plan* to control the spread of noxious weeds during construction (e.g., the use of equipment wash stations). Noxious weed populations located immediately adjacent to the right-of-way (and in the vicinity of the Project for vegetation with greater means of seed dispersal) would represent a seed source for areas within the right-of-way, especially where dense cover of noxious weed populations are present adjacent to the right-of-way and the noxious weed population is not being treated by the landowner or lessee. Sierrita committed to focusing weed surveys within both the construction right-of-way and the undisturbed 300-foot-wide survey corridor. A weed population would be treated if the percent cover is greater within the right-of-way than the percent cover of the same species outside of the right-of-way. Sierrita would work with the ASLD to also treat areas within the survey corridor to the extent practicable.
- CO4-85 See response to comment CO4-84.
- CO4-86 As discussed in section 4.4.8.2, Sierrita revised its *Post-Construction Vegetation Monitoring Document* to state that in areas where noxious weeds occur within the right-of-way, but not off the right-of-way, Sierrita would target areas for control when the weed cover exceeds 10 percent of the right-of-way. The weed cover percentages would be based on a visual estimate centered on the weed population.
- CO4-87 See response to comment CO4-84.

CO4 – Coalition for Sonoran Desert Protection (cont’d)

CO4-88 The Coalition’s comment regarding inherent variability is noted. Sierrita committed to consulting with the NRCS regarding additional input on seed mix and seed mix types based on ESDs prior to construction. The number of seed mix types would determine the location of monitoring plots (e.g., 20 upland monitoring plots with a specific number of random plots within each seed mix type area). We recommended in section 4.4.8.2 of the final EIS that prior to construction Sierrita file revised versions of its *Reclamation Plan* and *Post-Construction Vegetation Monitoring Document* that identifies Sierrita’s final seed mixes and rates developed in consultation with the NRCS and based on proposed seeding schedule(s), and associated updates to the number and location of monitoring plots.

CO4 – Coalition for Sonoran Desert Protection (cont'd)

Z-255

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- CO4-89 35. **Page G-22:** "Monitoring may be conducted beyond the fifth year as agreed upon by FERC and the ASLD if performance criteria have not been met but progress toward achieving the objectives is occurring." This statement should be changed to: "Monitoring may be conducted beyond the fifth year as agreed upon by FERC and the ASLD if performance criteria have not been met." The former sentence implies that if progress is not being made, that no further monitoring or adaptive management is required.
- CO4-90 36. **Page G-22, Table 6, Revegetation Criteria:** This table is incomplete – it does not include the performance criteria for species composition, frequency, density, dominance, or surface stability.
- CO4-91 37. **Page G-22, Table 6 and text:** Twenty-five percent cover is an *incredibly low bar of success* for invasive species. We recommend a much more stringent success standard – less than 10% absolute cover would be a more acceptable threshold.
- CO4-92 38. **Page G-22:** "However, if the visual observation of weed cover on lands immediately adjacent to the ROW is greater than 25 percent, then the 25 percent criterion for weed cover on the ROW will not apply." This statement should be struck. A more stringent criterion should apply to the entire ROW.
- CO4-93 39. **Page G-23:** The annual reports should include all raw data from the vegetation monitoring.
- CO4-94 40. **Page GA-1:** Include the minimum qualifications for personnel conducting vegetation monitoring, to include:
- Monitoring should be conducted by an independent third party.
 - Personnel should hold at least a Bachelor's degree in botany, range science, or other vegetation-related science field.
 - Personnel should be able to demonstrate knowledge of local flora prior to fieldwork, including the identification of the range of native and non-native plant species expected to be encountered onsite. Personnel should be qualified to identify unknown plant species with a regional dichotomous key and/or herbarium work.
- CO4-95 41. **Page GB-1:** Circumference of saguaros should be measured at breast height with a diameter at breast height (dbh) tape.
- CO4-96 42. **Page GB-2:** The data sheet should reflect that it is recording information for salvaged and transplanted plants, not seedlings.

Below is a list of specific questions and comments regarding Appendix H, the June 2013 draft of the *Noxious Weed Control Plan*:

- CO4-97 1. **Overall** – This document does not give clear guidance about how invasive plant species will be managed; it is short on details, yet it is clear in establishing a low bar for success.
- CO4-98 2. **Overall** – This document should be inclusive of all potentially hazardous invasive species, not just the small subset of agricultural weeds deemed "noxious" by the ADA. As such, the title should reflect more inclusive management, for example: "Invasive, Non-Native Management Plan."
- CO4-99 3. **Page H-1, first paragraph:** We object to the characterization of the proposed ROW as a "nominal 100 feet" – a 60-mile swath 100 feet wide equates to over 700 acres. Although this may be considered "nominal" for pipeline construction and maintenance, is not nominal from an ecological perspective.

- CO4-89 Sierrita revised its *Post-Construction Vegetation Monitoring Document* to state that "Monitoring may be conducted beyond the fifth year as agreed upon by FERC and the ASLD if performance criteria have not been met."
- CO4-90 Sierrita revised its *Post-Construction Vegetation Monitoring Document* to incorporate species composition, frequency, density, dominance, and surface stability into Table 6.
- CO4-91 Sierrita revised its *Post-Construction Vegetation Monitoring Document* to state that in areas where noxious weeds occur within the right-of-way, but not off the right-of-way, Sierrita would target areas for control when the weed cover exceeds 10 percent of the right-of-way. The weed cover percentages would be based on a visual estimate centered on the weed population.
- CO4-92 See response to comment CO4-84.
- CO4-93 This information would typically be provided in the report submittal to FERC, ASLD, or other appropriate agency upon request.
- CO4-94 The Coalition's comment regarding qualifications of vegetation monitors is noted.
- CO4-95 Sierrita revised its *Post-Construction Vegetation Monitoring Document* to identify that the circumference of saguaro cactus should be measured at breast height with a diameter at breast height.
- CO4-96 Sierrita revised its *Post-Construction Vegetation Monitoring Document* with a modified data sheet on page GB-2 to reflect that it is recording information for salvaged and transplanted plants, not seedlings.
- CO4-97 The Coalition's comment regarding the *Noxious Weed Control Plan* is noted. Please note that Sierrita's *Noxious Weed Control Plan* is not a FERC-produced document, although we reviewed the plan to ensure it meets acceptable thresholds and standards to reduce Project impacts. While we recognize that sound scientific methods are appropriate, we note that it is at Sierrita's discretion to make changes recommended by parties other than landowners and land-managing and/or permitting agencies. We note, however, that FERC is the lead federal agency that would oversee construction and restoration of the Project. As such, FERC would oversee Sierrita's compliance with its construction procedures and mitigation measures described in its applications and supplements including responses to staff data requests and as identified in the EIS, unless modified by any Order, and ensure that Sierrita fulfills the intent of its various Project-related plans. Sierrita would also be legally required to comply with any Project requirements as agreed to or conditions included as a part of any Order issuing Certificate.
- CO4-98 See response to comment CO4-83.
- CO4-99 In this context, the term "nominal" is used in the sense of 'existing as something in name only' because the Project right-of-way is not consistently 100 feet in width.

CO4 – Coalition for Sonoran Desert Protection (cont'd)

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- CO4-100 4. **Page H-3, Table 3-1:** We recommend including a footnote to indicate that dodder and red star are native species that are considered invasive by ADA due to impacts on agricultural crops. We do not advocate for the control of these species when they are growing in a natural/non-agricultural environment.
- CO4-101 5. **Page H-4, Table 3-2:** It would be helpful to see this information presented on a map.
- CO4-102 6. **Page H-9, third paragraph:** We strongly object to diminished management requirements for species that are widespread but without legal noxious status. The ADA noxious weed list is heavily weighted toward species that impact agricultural crops; many other species may have serious ecological impacts, as well as the potential to diminish revegetation success, but not be on the list (e.g., Russian thistle, Bermuda grass, saltcedar, Johnson grass, and Lehmann's lovegrass). If the goal is successful revegetation, these non-native species must be treated with the same level of priority as those that are on the ADA noxious weed list. We recommend an expansion of the treatment list to include those that cause ecological harm, as the surrounding land is generally natural open space and rangelands, not agricultural fields. Species should be segregated into treatment priority lists. See comment #29 on Appendix G.
- CO4-103 7. **Page H-9, Noxious Weed Management, general:** We strongly recommend the inclusion of a table that lists all species to be included in invasive species management. This should include not only species that were observed during the 2012 surveys, but those that may be expected to invade once large-scale ground disturbance occurs (e.g., starthistles [*Centaurea solstitialis* and *C. melitensis*]). There should be a mechanism to add species to the management protocols, as unexpected species (e.g., Sahara mustard [*Brassica tournefortii*]) may invade and could have disastrous ecological impacts not only to the already impacted ROW, but to adjacent undisturbed areas. One resource that would be helpful in defining invasive species priorities is *Invasive Non-Native Plants that Threaten Wildlands in Arizona*, a publication of the Arizona Wildlands Invasive Plant Working Group (2005), accessible here: <http://sbsc.wr.usgs.gov/research/projects/swepic/SWVMA/sbscmain.asp>
- CO4-104 8. **Page H-10, last bullet:** Hay bales should not be used, as they include seed heads; straw only.
- CO4-105 9. **Page H-11, Equipment Cleaning, first bullet:** In order to prevent the unintentional introduction of non-native and invasive species, all contractor vehicles and equipment should be thoroughly washed when arriving onsite, not just those arriving from out of state.
- CO4-106 10. **Page H-12, Treatment Methods, first paragraph, second sentence:** See comment number 6 above. This approach is unacceptable due to the agricultural focus of the ADA noxious weed list.
- CO4-107 11. **Page H-12, Treatment Methods, first paragraph, third sentence:** See comment number 7 above. The species to be included for treatment should be clearly identified in this plan, with priority status, and with a mechanism to add species that are not currently present or that may become unexpectedly problematic.
- CO4-108 12. **Page H-12, General Treatment Methods:** Species-specific methods should be analyzed and identified according to the best and most current information available to land managers. Treatment methods should be considered in the context of the biology and phenology of specific species, and season-appropriate options should be presented. Acceptable herbicides should be specifically identified for each species, as well as any

- CO4-100 See response to comment CO4-83.
- CO4-101 Section 4.4.5 of the final EIS includes a summary table. Figures depicting invasive and noxious plant populations along the proposed route can be found as part of Sierrita's application (Resource Report 3, appendix 3G).
- CO4-102 See response to comment CO4-83.
- CO4-103 See response to comment CO4-83.
- CO4-104 Sierrita revised its *Noxious Weed Control Plan* to remove the term "hay" bales from the document.
- CO4-105 Sierrita revised its *Noxious Weed Control Plan* to state that all contractor vehicles and equipment should be thoroughly washed when arriving onsite, not just those arriving from out of state.
- CO4-106 See response to comment CO4-83.
- CO4-107 See response to comment CO4-83.
- CO4-108 Section 7.0 of the *Noxious Weed Control Plan* states that "Noxious weed control measures would be implemented in accordance with existing regulations and jurisdictional agency or landowner agreements....Sierrita would coordinate with appropriate agencies/entities to determine which of the species require treatment and to determine the appropriate treatment schedules."

CO4 – Coalition for Sonoran Desert Protection (cont'd)

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- CO4-108 (cont'd) mechanical treatments that might be appropriate. Agency personnel and other interested parties should have an opportunity to review specific treatments proposed.
- CO4-109 13. **Page H-12, Mechanical Methods:** Mowing or disking should not be used for species that re-sprout or exhibit asexual reproduction, such as Bermuda grass. It is very important that the treatment method consider the biology and phenology of the species for effective management.
- CO4-110 14. **Page H-12, Herbicide Application:** Once native revegetation species are present in the ROW, herbicides should be applied via back-pack sprayers to avoid unintentional impacts to native species. Application via ATV should not be allowed as it would negatively impact revegetation success through unintended overspray and vehicular compaction.
- CO4-111 15. **Page H-13, first paragraph, first sentence:** Species-specific treatment methods should be defined in this document to allow for agency review.
- CO4-112 16. **Page H-14, first paragraph:** Careful application of herbicide (i.e., with backpack sprayers and applied by personnel qualified to identify native and non-native species) can be successful during the revegetation effort. We do not agree that merely seeding the area can be expected to provide adequate control of invasive species.
- CO4-113 17. **Page H-14, second paragraph:** We agree that there would be a need to develop site-specific seed mixes, and that these should be included in the *Project Reclamation Plan*. Is the Project Reclamation Plan forthcoming, or is it the same as the *Sierrita Upland Erosion Control, Revegetation, and Maintenance Plan*? If so, the latter plan 1) does not include site-specific seed mixes, and 2) does not contain adequate detail overall to be considered a revegetation plan. Further, the seed mixes presented in the *Long-term Post-construction Monitoring Document* do not follow this approach.
- CO4-114 18. **Page H-14, Post-Construction Monitoring, second paragraph:** Invasive species treatment should occur whenever they are present, according to treatment priorities that are currently missing from this document. It is not acceptable to treat only when a visual estimate of the percent cover is greater in the ROW than in adjacent areas – that is a very low bar. Kinder Morgan should work with ASLD to treat invasive species in the 300-ft survey corridor to provide a buffer area with reduced opportunity for weed sources to invade. In the interest of achieving performance criteria, all weeds within the ROW should be treated.
- CO4-115 19. **Page H-15, first sentence, top of page:** Thirty percent cover is an *incredibly low bar of success* for invasive species. Further, this is not consistent with Appendix G. We recommend a much more stringent success standard – less than 10% absolute cover would be a more appropriate target.
- CO4-116 20. **Page H-15, last full paragraph:** Again, this approach would take a great deal of the onus off Sierrita for effective invasive species control. We advocate for a much more stringent approach that is clearly laid out. In the interest of achieving performance criteria, all weeds within the ROW should be treated.
- CO4-117 21. **Overall:** There is no mention of how long invasive species treatment would continue. We recommend that this is clearly identified as a maintenance requirement in perpetuity.

CO4-109 See response to comment CO4-108.

CO4-110 Sierrita revised its *Noxious Weed Control Plan* to state that once native species have been revegetated in the right-of-way, herbicides should be applied via backpack sprayers to avoid unintentional impacts on native species, and application via ATV would not be allowed to avoid unintended spraying and soil compaction.

CO4-111 See response to comment CO4-108.

CO4-112 See response to comment CO4-97.

CO4-113 The *Reclamation Plan* includes documentation of proposed seed mixes, distribution method, and timing. Sierrita committed to consulting with the NRCS regarding additional input on seed mix. We recommended in section 4.4.8.2 of the final EIS that prior to construction, Sierrita file revised versions of its *Reclamation Plan* and *Post-Construction Vegetation Monitoring Document* that identifies Sierrita's final seed mixes and rates developed in consultation with the NRCS and based on proposed seeding schedule(s), and associated updates to the number and location of monitoring plots.

CO4-114 See response to comment CO4-108. Sierrita committed to focusing weed surveys within both the construction right-of-way and the undisturbed 300-foot-wide survey corridor. A weed population would be treated if the percent cover is greater within the right-of-way than the percent cover of the same species outside of the right-of-way. Sierrita would work with the ASLD to also treat areas within the survey corridor to the extent practicable.

CO4-115 As discussed in section 4.4.8.2, Sierrita revised its *Post-Construction Vegetation Monitoring Document* to state that in areas where noxious weeds occur within the right-of-way, but not off the right-of-way, Sierrita would target areas for control when the weed cover exceeds 10 percent of the right-of-way. The weed cover percentages would be based on a visual estimate centered on the weed population.

CO4-116 See response to comment CO4-84.

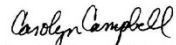
CO4-117 Section 1.2 of Sierrita's *Noxious Weed Control Plan* states that Sierrita would implement the practices described in the Plan during both the construction and operation phases of the Project.

CO4 – Coalition for Sonoran Desert Protection (cont'd)

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CO4-118 Thank you for your consideration of these and all other relevant issues as you draft the
CO4-119 Supplemental DEIS for this project. Please continue to include the undersigned organizations as
interested parties on this matter and direct all future public notices and documents to the
undersigned organizational representatives at the addresses below.

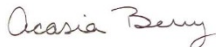
Sincerely,



Carolyn Campbell, Executive Director
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520-629-0510



Sandy Bahr, Chapter Director
Sierra Club – Grand Canyon Chapter
202 E. McDowell Rd., Suite 277
Phoenix, AZ 85004
602-253-8633

CO4-118 The Coalition's comment regarding a supplemental draft EIS is noted.

CO4-119 Ms. Campbell and Mr. Serraglio were included on the distribution list for the
draft EIS. The environmental mailing list has been updated to also include
Ms. Berry, Mr. Green, and Ms. Bahr.

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CO4 – Coalition for Sonoran Desert Protection (cont'd)

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APPENDIX A



EPNG pipeline scar in Cochise County west of State Highway 80, through wash. Photo by Jenny Neeley/SIA



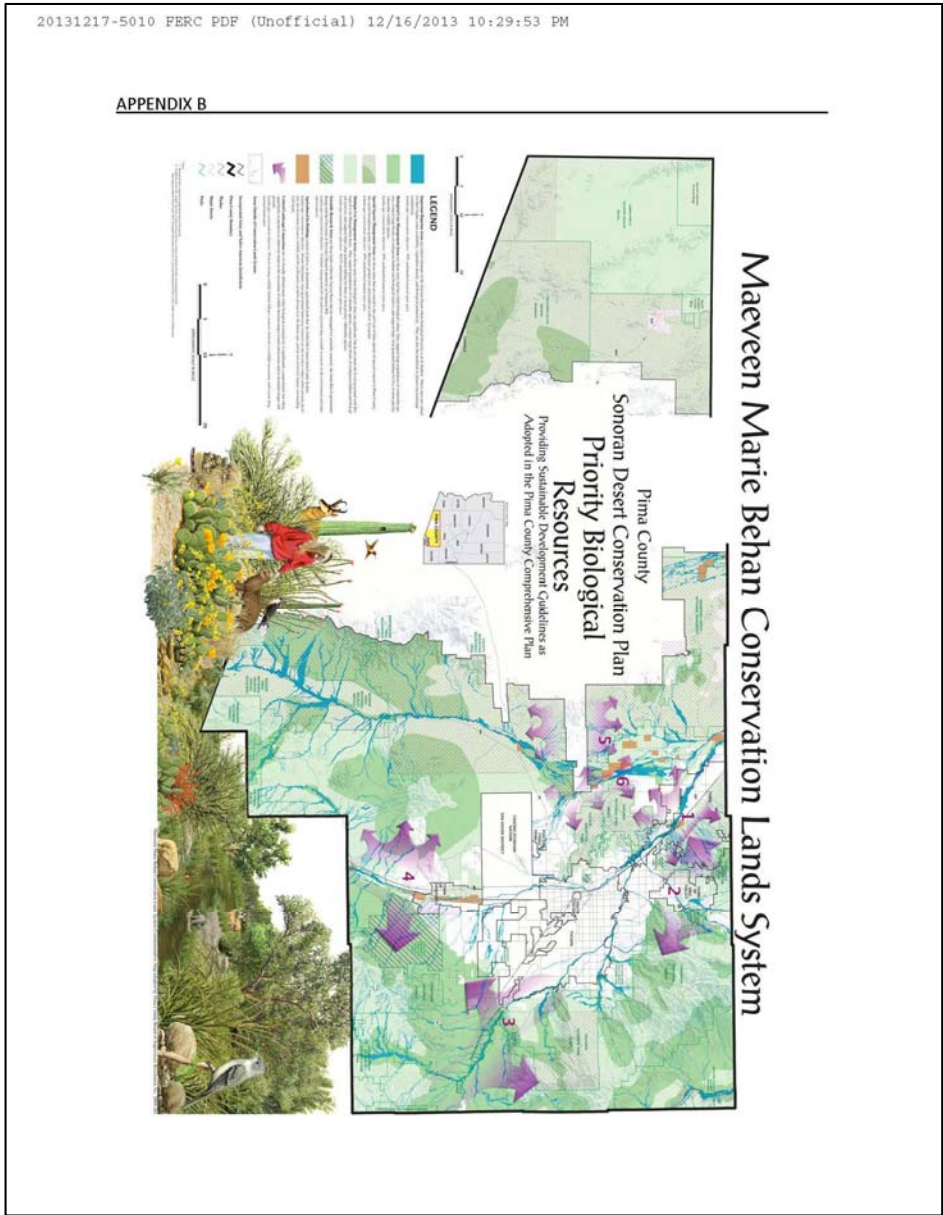
EPNG pipeline scar in Cochise County west of State Highway 80. Photo by Jenny Neeley/SIA



EPNG pipeline scar in Cochise County west of State Highway 80, close-up of impacted wash. Photo by Jenny Neeley/SIA



EPNG pipeline in Cochise County west of State Highway 80, access road looking south. Photo by Jenny Neeley/SIA



COMPANIES AND ORGANIZATIONS

CO5 – Altar Valley Conservation Alliance

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14990 S. Sasabe Road
Tucson, AZ 85736



www.altarvalleyconservation.org

December 16, 2013

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission (FERC)
888 First Street NE, Room 1A
Washington, DC 20426

Regarding: FERC's draft Environmental Impact Statement
for the proposed Sierrita Pipeline Project
Docket Numbers: CP13-73-000 and CP13-74-000

Dear Ms. Bose:

Thank you for the opportunity to comment on the draft Environmental Impact Statement (DEIS) for the proposed Sierrita Pipeline Project. These comments on FERC's DEIS are being submitted by the Altar Valley Conservation Alliance (AVCA), which is a collaborative conservation organization of ranchers and other agriculturalists living and working in the Altar Valley. In 1995, Altar Valley ranchers and agriculturalists rallied together as neighbors with the same vision: *conserving the Altar Valley for future generations*. Development pressures loomed as Tucson sprawled outward and the watershed was stymied by resource management conflict. The desire to leave the next generation with an open, healthy working landscape provided the rich soil from which the Alliance sprouted.

From the beginning, the newly formed alliance of neighbors reached out to land and resource agencies with responsibilities in the watershed. People gradually became acquainted, found common ground, and worked to respect differences. Finally, these concerned parties agreed to take on collaborative projects to protect the land and lifestyles they loved. The Alliance was incorporated as a 501(c)3 in 2000.

Today, the Alliance is a strong presence in the Altar Valley. The Alliance has enabled the watershed to evolve into a dynamic working landscape and laboratory. Funding is in place for a variety of restoration projects. A valley-wide prescribed fire plan is in place and continues to grow. Arroyo restoration and water harvesting from ranch road workshops are held regularly. With the Alliance's influence, relationships that either did not exist or were tenuous at best are now respectful and mutually beneficial.

Altar Valley partners have transcended late 20th century conflict between grazing and environmental protection. Pima County is a key player in the valley landscape, as over 200,000 acres of agricultural land that could have been sold into development have instead become part of the Maeveen Behan Conservation Lands System. The Buenos Aires National Wildlife Refuge has become a partner, rather than an adversary. Cowboys and conservationists have

AVCA Comments on the Draft Environmental Impact Statement for the Sierrita Pipeline Project
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CO5 – Altar Valley Conservation Alliance (cont'd)

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joined forces to create 21st century history that celebrates and practices the best of the old and new ways of taking care of land, wildlife, and people.

- COS-1 The Alliance's vision and efforts to conserve the Altar Valley as an open, working landscape are in fundamental conflict with Kinder Morgan's vision of the Altar Valley as a utility corridor. As proposed, we see no benefit to the Altar Valley itself nor southern Arizona, only destruction of a landscape that individuals both within and outside of the valley have been working for many years to keep open and healthy.
- COS-2 From the beginning of the application process, the Alliance questioned the basic need for the proposed Sierrita Lateral pipeline to travel through the Altar Valley on its way to the U.S.-Mexico border and the narrow focus on Sásabe as the border crossing point. In our scoping comments, we asked that FERC's DEIS concerning the proposed Sierrita Lateral project include a thorough analysis and consideration of both a no action alternative and alternatives that might emerge from the scoping process which cross the U.S./Mexico border at locations other than Sásabe, in addition to the east and west routes proposed by Kinder Morgan.
- COS-3 With the release of the DEIS in October, we were disappointed to see that it contained many flaws. The analysis of purpose and need and of alternatives continued to be artificially narrowed by the applicant's desire to cross the U.S./Mexico border at Sásabe and is now down to one action alternative. The DEIS's description of the proposed action, including Sierrita's plans and procedures, and the DEIS's environmental analysis should be improved to provide a detailed description of the proposed action and its impacts.
- COS-4 A considerable amount of significant information is still missing from the DEIS and the public needs an opportunity to review and comment on this information as integrated into a revised or supplemental DEIS, prior to the release of a final EIS. To the extent that there is information that is missing or incomplete because it is not reasonably obtainable, FERC needs to comply with the regulation on incomplete and unavailable information. The DEIS also contains analyses based on information that is just plain wrong. Analyses suggesting that major impacts will fall below a "significance" threshold are often based on incorrect assumptions.
- COS-5 Cumulative effects are not well addressed and transboundary effects are slighted.
- COS-6
- COS-7
- COS-8 Furthermore, and perhaps most frustrating to us as participants who have invested a great deal of time in FERC's process, the DEIS reflects a very disturbing failure to take into account comments by AVCA and other parties, including government agencies, already proffered on the record. Proposed mitigation, despite being the subject of a public meeting in June, 2013, is described in broad, general sweeping terms, unrelated to the actual landscape. In that regard, specific suggestions by AVCA members and representatives of local government and tribal agencies made at that meeting have gone unaddressed. The description of proposed mitigation, along with a realistic assessment of the proposed mitigation being accomplished and succeeding and an analysis of impacts if mitigation is not implemented and/or fails to achieve the intended goals, must be included in the analysis.
- The very existence of a 600,000 plus acre open working landscape is a rarity these days, particularly so close to a major urban area. Agricultural operators and the array of public and private partners who share management responsibility and/or interest in the valley have worked increasingly well together to enhance the ecological and agricultural potential of the valley, particularly since the late 1970s when the US Natural Resource Conservation Service rangeland monitoring program began in earnest. A great deal of work remains, but the Altar Valley is extremely valuable in that we still have the chance to do this work, thanks to the open

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CO5-1 The AVCA's comment regarding no benefits from the Project to the Altar Valley or southern Arizona is noted.

CO5-2 See responses to comments PM1-4, PM1-6, and NAT4-7.

A project's need is established by the FERC when it determines whether a project is required by the public convenience and necessity. The FERC's Certificate Policy Statement provides guidance as to how the Commission evaluates proposals for new construction, and establishes criteria for determining whether there is a need for a proposed project and whether it would serve the public interest. The Certificate Policy Statement explains that in deciding whether to authorize the construction of major new pipeline facilities, the Commission balances the anticipated public benefits against the potential adverse consequences. The Commission's goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, avoiding the unnecessary exercise of eminent domain and disruptions of the environment.

CO5-3 See responses to comments PM1-4, PM1-6, and NAT4-3.

CO5-4 See response to comment PM1-3.

CO5-5 See responses to comments PM1-3 and NAT4-3.

CO5-6 See response to comment NAT4-3.

CO5-7 See response to comment PM1-35.

CO5-8 See response to comment NAT4-3.

As stated in section 4.0, we begin our discussion in the EIS of potential impacts for a given resource with what could happen in the absence of appropriate construction techniques or conservation measures to address environmental impacts on or effects to resources. Our discussion then focuses on what we anticipate the impacts to be, given the Project-specific conditions and measures that would address environmental concerns, including measures proposed by Sierrita, those required by other agency or permitting or regulations, and our additional recommendations.

The AVCA's previously filed comments for Sierrita's consideration regarding its construction and restoration plans are noted. Throughout the scoping and EIS processes, we made recommendations that Sierrita adopt certain changes and/or mitigation measures we concluded are necessary based on our knowledge of pipeline construction and stakeholder input, where consistent and practicable. Our analysis of the Project impacts and Sierrita's proposed mitigation measures is based on extensive previous pipeline experience. The FERC has analyzed thousands of pipeline projects. We note that the recommendations we made and Sierrita adopted to date exceed general minimum requirements according to FERC regulations.

The AVCA's suggested contributions to Sierrita's plans provided throughout the NEPA process are noted. Regardless of whether Sierrita selected to adopt the AVCA's suggestions, Sierrita would be required to ensure its Project follows the construction procedures and mitigation measures described in its applications and supplements including responses to staff data requests and as identified in the EIS, unless modified by any Order, and fulfills the intent of its various Project-related plans.

Also see response to comment CO4-54.

CO5 – Altar Valley Conservation Alliance (cont'd)

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nature of the landscape. This place deserves the most sophisticated and thoughtful land-use planning possible.

CO5-9 | A consultant working with AVCA has contacted a number of practitioners whose work deals with natural gas pipelines at both the U.S.-Canadian border and U.S.-Mexican border and globally. Based upon such contacts to date, that consultant has been unable to identify any transboundary pipeline situation in which the pipeline is constructed in one country prior to the conclusion of the decisionmaking process in the other country. While a corporation may make a decision to assume business risks, the situation we now face is bad public policy and puts an especially heavy burden on FERC to conduct its alternative analysis in a thoughtful, open and comprehensive manner, including due consideration of the no action alternative, to ensure both the appearance and reality of an unbiased, objective decisionmaking process.

CO5-10 | The cumulative effect of the deficiencies in this DEIS is of such a magnitude that FERC should notice and prepare a revised or supplemental draft EIS. Our discussion of these issues and numerous other problems with the DEIS are enumerated in the pages that follow.

Sincerely,



Patricia King
President
Altar Valley Conservation Alliance



Mary Miller
Vice-President
Altar Valley Conservation Alliance

CO5-9 The AVCA's comment regarding construction of the pipeline in one country prior to the conclusion of the decision making process in another country is noted. Construction of a project in another nation does not commit the Commission to any pre-determined course of action. The Commissioners at FERC ultimately have the authority to approve the proposal, with or without modification, or decide to not approve the project.

CO5-10 The AVCA's comment regarding a supplemental draft EIS is noted.

CO5 – Altar Valley Conservation Alliance (cont'd)

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Detailed Comments of the Altar Valley Conservation Alliance on the Sierrita Pipeline Project Draft Environmental Impact Statement

CO5-11 | **I. The Purpose and Need Set Forth in the Draft EIS Is Inappropriately and Prejudicially Constrained, Contrary to the Purposes and Requirements of the National Environmental Policy Act**

In the DEIS, FERC confuses the applicant's desires with the requirement for FERC to articulate the purpose and need of the project being analyzed in the EIS. It does so by analyzing only one action alternative – the western route between Tucson and Sasabe. All routes outside of the Altar Valley are artificially made more environmentally and financially costly by requiring that "all routes go to Sasabe, Arizona". Given this analytical mindset, the applicant's proposed route thus becomes the only reasonable alternative. However, there is nothing inherent about the need to reliably transport natural gas from the United States to Mexico, or, more specifically, from the United States to Guaymas and Puerto Libertad, Sonora, that requires the pipeline to cross the U.S. Mexico border at Sasabe, Arizona.

The applicant's asserted "need" to cross at Sasabe is self-inflicted. We understand that the applicant is responding to a situation in which the Mexican ministry, the Comisión Federal de Electricidad (CFE) awarded two contracts to Sempra International's Mexican business unit to construct, own and operate an approximately 500-mile (820 kilometers) pipeline network connecting the northwestern states of Sonora and Sinaloa. Sierrita's proposed lateral pipeline would interconnect with this pipeline network. CFE specified that a new U.S. pipeline would be required to terminate at Sasabe and connect existing natural gas transmission infrastructure in the United States to the planned pipeline in Mexico. In that regard, AVCA notified FERC immediately upon reading Kinder Morgan's announcement that it and El Paso Natural Gas Company had entered into an agreement with companies in Mexico that required that a new pipeline to be constructed in the U.S. would terminate at Sasabe, Arizona. In our letter of December 13, 2012 (Docket No. PF12-11-000, Accession Number 20121213-5149), AVCA warned that the applicant's actions in entering into this agreement appeared to be a violation of 40 C.F.R. § 1506.1(a) prohibiting taking actions concerning a proposed project that would have an adverse environmental impact or limit the choice of reasonable alternatives until the Record of Decision is signed. We asked FERC, per guidance from the Council on Environmental Quality, to take appropriate action to rectify the situation. A copy of that letter is attached to these Comments as Appendix A.

The problem that AVCA identified in the December 13, 2012, letter referenced above is now manifested in this DEIS. The agreement entered into by the applicant has resulted in every possible crossing from the United States to Mexico except Sasabe being characterized as

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CO5-11 See responses to comments PM1-4 and NAT4-3.

The AVCA's comments regarding other federal agency NEPA reviews and court cases are noted.

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CO5-11
(cont'd) unreasonable. Rather than border security, environmental or related social or economic factors, or other matters associated with the U.S. public's "convenience and necessity" shaping the statement of purpose and need, FERC has adopted one criterion only – the applicant's preference. This puts us – U.S. citizens expecting our federal agencies to uphold U.S. law – at a serious disadvantage – and calls into question the legality of FERC's analytical approach and resulting conclusion(s).

U.S. law, including NEPA, cannot be implicitly modified by the acts of a foreign ministry or an agreement between private parties. The Court of Appeals for the Ninth Circuit has been clear that an agency cannot craft a purpose and need statement so focused on the applicant's interests that it results in an unduly narrow range of alternatives. In *National Parks & Conservation Association v. Bureau of Land Management*, 606 F.3d 1058 (9th Cir. 2010; petition for rehearing denied (Pet. App. 275-279); petition for *certiorari* in the Supreme Court, denied), the Bureau of Land Management (BLM) was responsible for processing an application for landfill that Kaiser Eagle Mountain, Inc., wanted to build in the southern California desert on land that it owned and on which it had conducting mining activities. As part of its plan, Kaiser wanted to exchange parcels of private land for BLM land surrounding the proposed site of its landfill. BLM evaluated the proposal in an EIS. The purpose and need statement in the EIS stated that the primary purpose of the project was to: i) develop a particular type of landfill that would meet projected long-term demand for landfill capacity in Southern California; ii) provide a long-term income source from the development of a nonhazardous municipal solid waste landfill; iii) find an economically viable use for the existing mining by-products at Kaiser's mine site; and iv) provide long-term land use and development goals and guidance for the area. BLM considered six alternatives in detail, including the landfill on Kaiser's land only, landfill development without the land exchange and various alternatives dealing with transportation and waste reduction.

The Court found that three of the four stated objectives reflected in BLM's purpose and need statement reflected Kaiser's needs, not BLM's. While acknowledging that agencies have an obligation to consider a private company's needs, the Court pointed out that, "Requiring agencies to consider private objectives, however, is a far cry from mandating that those private interests define the scope of the proposed project." In that regard, the Court observed that the focus on the private applicant's needs inappropriately resulted in a constrained range of alternatives. While BLM had identified several alternatives that would have been responsive to the one legitimate agency need identified in the purpose and need statement (permitting a landfill to meet demand), other alternatives, seemingly reasonable, were not analyzed in detail because they failed to meet Kaiser's private needs. Accordingly, the Court held that:

"Our holdings in *Friends* and *Carmel-By-The-Sea* forbid the BLM to define its objectives in unreasonably narrow terms. The BLM may not circumvent this proscription by adopting private interests to draft a narrow purpose and need statement that excludes alternatives that fail to meet specific private objectives, yet that was the result of the process here. The BLM adopted Kaiser's interests as its own to craft a purpose and need statement so narrowly drawn as to foreordain approval of the land exchange. As a result of this unreasonably narrow purpose and need statement, the BLM necessarily considered an unreasonably narrow range of alternatives. We therefore affirm the district court's grant of summary judgment on both the "purpose and need" and reasonable range of alternatives" claims under NEPA."

In a case involving a company's proposed plans for oil and gas exploration in an area of Utah, the lead agency for NEPA purposes, BLM similarly gave credence to the company's claim that it could not undertake the exploration without constructing new roads, despite considerable

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CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-11 | public comment suggesting otherwise. BLM argued that the company's experts should get
(cont'd) | deference, despite its lack of an independent analysis of the public's suggestions of alternatives
that would avoid construction on intact soils. In its decision, the Court pointed out that while an
agency must consider the applicant's needs and goals when shaping its own purpose and need
statement, "that obligation does not limit the scope of the agency's analysis to what the
applicant says it needs." *Southern Utah Wilderness Alliance v. Norton*, 237 F. Supp. 2d 48
(D.D.C. 2002).

Consistent with the above holdings, in *Simmons v. U.S. Army Corps of Engineers*, 120
F.3d 664 (7th Cir. 1997), the Corps of Engineers evaluated an application for permission to build
a dam and reservoir. Both the applicant and the Corps defined the purpose of the proposed
action as furnishing a supply of water to particular localities from a new lake. When the Corps
prepared its EIS, all alternatives were premised on the idea of a supply of water from a single
source. However, the Court of Appeals held that the Corps unduly constrained the statement of
purpose and need: "An agency cannot restrict its analysis to those 'alternative means by which
a particular applicant can reach his goals.' *Van Abeema*, 807 F.2d at 638. . . .". The Court
explained that, "The public interest in the environment cannot be limited by private agreements"
and, "This is precisely what the Corps did in this case." Suffice it to say, that is also precisely
what FERC is doing in this instance with respect to the Sierrita Pipeline Project.

II. The Range of Alternatives Fully Analyzed in FERC's Draft EIS Inappropriately Excludes Other Reasonable Alternatives

The requirement for a federal agency to analyze alternatives when preparing an
environmental impact statement (EIS) under NEPA is a critical requirement of the law. Absent
the requirement to analyze alternatives, the "NEPA process" would simply be a documentation
of the potential effects of a proposed action, possibly with the identification of some mitigation.

CO5-12 | That is precisely what has happened in this DEIS. The only fully analyzed alternative is the one
proffered by the applicant.

Congress passed NEPA in 1969 to, among other things, articulate this country's national
environmental policies and to establish an analytical process to inform federal agency
decisionmaking. The only requirement identified in the law twice relates to the need to analyze
alternatives. More specifically, Congress directed federal agencies to include "alternatives to
the proposed action" in the document that has come to be known as an environmental impact
statement (EIS). 42 U.S.C. § 4332(C). Agencies were also instructed in NEPA to, "study,
develop, and describe appropriate alternatives to recommended courses of action in any
proposal which involves unresolved conflicts concerning alternative uses of available
resources." 42 U.S.C. § 4332(E).

The Council on Environmental Quality's Regulations and Guidance

The Council on Environmental Quality (CEQ), the agency with oversight over the NEPA
process for the executive branch of the federal government, promulgated regulations that
implement the procedural provisions of the law and are binding on all federal agencies. 40
C.F.R. §§ 1500-1508. Those regulations reflect the statutory emphasis on the alternatives
requirement and in unusual language for government regulations, characterize the alternatives
section of an EIS as "the heart of the environmental impact statement." 40 C.F.R. § 1502.14
(emphasis added). The result of a good alternatives analysis, as characterized by the
regulation, is analysis that will provide a "clear basis for choice among options by the
decisionmaker and the public." To achieve that, agencies are directed to:

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CO5-12 See responses to comments PM1-4, PM1-6, and NAT4-3.

CO5 – Altar Valley Conservation Alliance (cont'd)

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- "(a) rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
- (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.
- (c) Include reasonable alternatives not within the jurisdiction of the lead agency.
- (d) Include the alternative of no action.
- (e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.
- (f) Include appropriate mitigation measures not already included in the proposed action or alternatives." 40 C.F.R. 1502.14 (a-f).

As the executive branch overseer of the NEPA process, CEQ issues guidance regarding NEPA implementation, interpreting the law and guiding the practice. One of the most often referenced guidance documents, issued shortly after promulgation of its executive branch-wide regulations, is CEQ's "Forty Most Asked Questions" guidance document. The first seven out of the Forty Questions deals with the alternatives analysis requirement. Of particular importance and relevance here is Question Two and CEQ's answer:

2. If an EIS is prepared in connection with an application for a permit or other federal approval, must the EIS rigorously analyze and discuss alternatives that are outside the capability of the applicant or can it be limited to reasonable alternatives that can be carried out by the applicants?

"Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant."

(Question 2a, emphasis added). *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, published at 46 Fed. Reg. 18026.

There is a considerable body of case law that has expounded on this very fundamental NEPA requirement. Indeed, several of the earliest "landmark" cases under NEPA addressed this issue and emphasized its centrality to the NEPA process. Recent case law continues to affirm the importance of alternatives. In *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800 (9th Cir. 1999), the Ninth Circuit considered a proposed land exchange evaluated in an EIS that contained "only a 'no action' alternative along with two virtually identical alternatives", after eliminating three other alternatives from detailed study. The lead agency balked at considering an alternative that would have achieved the purpose and goal of the private sector proponent but that was not within its authority to achieve. The Court found that argument unacceptable remanded the case back to district court and enjoined any activities implementing the proposed action until a full range of alternatives (and an adequate analysis of cumulative effects) was prepared and circulated for review and comment. *Id.* at 812-815. In *Davis v. Mineta*, 302 F.3d 1104 (10th Cir. 2002), the Court invalidated an environmental assessment that considered only the "no action" alternative and the proposed action. And in, *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172 (9th Cir. 2008) which involved the promulgation of CAFÉ standards and focused on the climate change of various possible standards, the Court similarly found fault with the failure to consider a

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reasonable alternative suggested by a commentator on the draft EIS. On review, the Court held that the agency needed to analyze a wider range of alternatives in a new EA or EIS.

In addition, the requirement to consider alternatives has been upheld in the context of cross-boundary linear projects, even when it involves considering alternative methods of implementing actions in Mexico. In *Border Power Plant Working Group v. Department of Energy*, 260 F. Supp. 2d 997 (S.D. Cal. 2003), the Department of Energy (DOE) analyzed two location alternatives and the "no action" alternative in an EIS for granting Presidential Permits and a right-of-way for electrical transmission lines intended to cross the California-Mexico border to connect new power plants in Mexico with the power grid in southern California. Plaintiffs argued that the agencies should have considered alternatives conditioned on the commitment of the applicant to implement certain mitigation measures with respect to plants in Mexico intended to export power back into the United States. In its arguments presented in court, DOE argued that "international sensitivities" precluded conditioning the permits in this manner. The Court explained that to the extent that was the case, the reasoning should be presented in the NEPA analysis rather than a litigation brief. Further, the Court refuted the notion that, "the federal government's conditioning of a permit to construct transmission lines within the government's jurisdiction to ameliorate negative environmental effects within the United States offended international principles of law." *Id.* at 1030-31.

Here, AVCA seeks only to implement U.S. law on U.S. soil. Whatever the factors involved in the decision to commence clearing of the right-of-way and construction of the pipeline in Mexico, that decision cannot modify the application of NEPA to FERC's decision any more than FERC can reverse a decision of a Mexican government agency. Both countries must respect each other laws and decisions. In this situation, a Mexican agency appears to have made a decision that is being implemented prior to a required decision and authorization by FERC. A decision to fully analyze and consider routes outside of the Altar Valley would not negate that agency's decision, nor does it require that U.S. law be forced into consideration of only a route that would cross the border at Sasabe, Arizona. Rather, the Mexican agency's decision required that the pipeline in Mexico commence in Sásabe, Sonora. A pipeline that crossed the border at, for example, Nogales Ambos, could, with the appropriate authorization from Mexican authorities, then proceed back to Sásabe, Sonora. In other words, the decision on how to achieve compliance with the action of a Mexican entity should be made in Mexico; the decision on reasonable alternatives for the pipeline route in the U.S. should be made in accordance with U.S. law.

Further, while we believe that the pipeline should be sited outside of the Altar Valley all together, we also believe that FERC should more fully analyze the eastern route. We are well aware of the challenges involved in using that route. However, we note that the analysis presented in the DEIS along with the analyses of, the U.S. Fish and Wildlife Service's (USFWS) Ecological Service's Office, Pima County and ourselves, all demonstrate that the eastern route has significantly less severe impacts than the "preferred alternative. FERC has a responsibility to analyze reasonable alternatives outside of its own jurisdiction to facilitate consideration of this route. *NRDC v. Morton*, 458 F.2d 287 (D.C. Cir. 1972). An EIS is intended to inform more than just the lead agency. It is possible that the Department of the Interior, the USFWS, the applicant, Congress and other involved and interest agencies and the public could, together, develop a proposal that would meet the USFWS' and the applicant's needs. Indeed, subsequent to the close of the second public comment meeting held on December 14, 2013, we learned that contrary to earlier representations, the applicant's representatives had not met with officials of the Department of the Interior or the U.S. Fish and Wildlife Service in Washington, D.C. about the eastern route nor had the applicant's representatives proffered a serious

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CO5-13 See responses to comments PM1-4, PM1-6, and PM1-9.

CO5-14 See responses to comments PM1-10 and PM1-11.

The commenter's preference for the East Route Alternative over the proposed route is noted.

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CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-14
(cont'd) mitigation proposal to the U.S. Fish and Wildlife Service in regards to the eastern route. While AVCA continues to feel that the Altar Valley is not the best location for this project, should FERC be inclined to approve a route in the Altar Valley, the eastern route is far superior to the western route in terms of ecological as well as social and economic impacts.

III. There is an Considerable Body of Missing Information that FERC Has Identified and That the Public Needs to Review and Comment on Prior to Publication of the Final EIS

CO5-15 As noted below, we agree with FERC's many requests for additional information related to a variety of important issues that need to be analyzed prior to FERC making a decision about the proposed approvals for this proposed pipeline. However, we, the public, as well as interested and affected agencies, need an opportunity to review and comment on this information prior to publication of the final EIS. The items FERC identified as missing are enumerated below and contain a great deal of missing information that the public should be given the opportunity to review. In that regard, Sierrita waited to file this information until the afternoon of December 16, 2013, thus failing to allow for any meaningful review prior to the close of the DEIS comment period. Thus, neither FERC nor the public nor other federal, tribal, local and state agencies have had any opportunity to review this material. Sierrita's untimely filing should be recognized as precisely that . . . untimely; and, additional time should be allowed for public, agency and tribal review and comment upon Sierrita's filing of earlier today.

4-14 / 4.2.1.1: "we recommend that: prior to the close of the draft EIS comment period, Sierrita should file with the Secretary of the Commission (Secretary) revised versions of its Plan and Procedures that addresses FERC staff's comments listed in appendix tables D-1 and E-1 of this draft EIS."

4-21 / 4.2.4: "we recommend that: prior to the close of the draft EIS comment period, Sierrita should file with the Secretary revised versions of its Plan and Procedures that include measures to further protect topsoil piles from heavy rain, flash flooding, and wind erosion during construction in the monsoon season between June 15 and September 30."

4-40 / 4.3.2.6: "we recommend that: prior to the close of the draft EIS comment period, Sierrita should file with the Secretary a table listing by milepost ephemeral washes crossed by the Project that are also connected to and upstream of a wildlife/livestock tank."

4-42 / 4.3.2.6: "we recommend that: prior to the close of the draft EIS comment period, Sierrita should file with the Secretary the results of its geotechnical investigation at the proposed CAP Canal HDD crossing. Sierrita also should file any revisions to the site-specific plan for the CAP Canal crossing as a result of this investigation."

4-43 / 4.3.2.6: "we recommend that: prior to the close of the draft EIS comment period, Sierrita should file with the Secretary the feasibility, including an environmental, economic, and engineering analysis, of adopting the HDD method to cross various riparian areas along the pipeline route. Examples of riparian areas to consider for analysis are:

- Washes 103 through 107 (generally between access roads AR-R1 and AR-R2);
- Wash 142 through Little Thomas Wash (generally between access roads AR-17 and AR-18);
- Aros Wash (generally between access roads AR-22 and AR-24);

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CO5-15 See response to comment PM1-3.

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(cont'd)

- d. Washes 188 through 195 (generally between access roads AR-24A and AR-26); and
- e. La Osa Wash (generally between access roads AR-27 and AR-28)."

4-64 / 4.4.8.2: "we recommend that: prior to the close of the draft EIS comment period, Sierrita should file with the Secretary a revised *Reclamation Plan and Post-Construction Vegetation Monitoring Document* that identify:

- a. the seed mix and seeding requirements for the seeding methodology it would adopt by milepost (i.e., aerial seeding, broadcast seeding, hydroseeding, or drill seeding); and
- b. the time period(s) Sierrita would conduct seeding (e.g., close to the monsoon period and winter rains) as identified through consultations with the FWS, NRCS, and land-managing agency."

4-65 / 4.4.8.2: "we recommend that: prior to the close of the draft EIS comment period, Sierrita should file with the Secretary a revised *Post-Construction Vegetation Monitoring Document* that includes:

- a. a commitment to monitor riparian areas (including woody riparian vegetation) for revegetation after construction as well as a description of the monitoring procedures and the criteria for identifying where the monitoring procedures would be implemented;
- b. a clarification that Sierrita would salvage saguaro cacti without arms that are less than 9 feet tall and Palmer's agave; and
- c. a clarification that Sierrita would confirm survivability of transplanted saguaro cactus and Palmer's agave after the second growing season and would continue to monitor transplanted plants over a 5-year period."

4-67 / 4.4.8.2: "we recommend that: prior to the close of the draft EIS comment period, Sierrita should file with the Secretary:

- a. site-specific justifications for each waterbody (including ephemeral washes) and associated riparian area where the construction right-of-way would be greater than 75 feet wide;
- b. site-specific justification for each waterbody (including ephemeral washes) and associated riparian area where the ATWS would be less than 50 feet from the banks; and
- c. revised alignment sheets that show any changes resulting from items a. and b. above."

4-72 / 4.4.9: "we recommend that: prior to the close of the draft EIS comment period, Sierrita should file with the Secretary a description of how it would access the permanent right-of-way for noxious weed control, vegetation monitoring, and maintenance in areas that have been restored to discourage the unauthorized use of the right-of-way."

4-149 / 4.8.1.1: "we recommend that: prior to the close of the draft EIS comment period, Sierrita should file with the Secretary a list by milepost identifying where it proposes to implement the use of 20 feet of uncleared extra construction right-of-way to place woody vegetation. Sierrita should also:

- a. identify the acreage and land use(s) affected by these areas;
- b. verify that these areas have been surveyed for biological and cultural resources;
- c. verify that sensitive resources (e.g., cultural resources sites, waterbodies, threatened and endangered species) would not be affected; and
- d. identify any new landowners affected."

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-15
(cont'd)

4-173 / 4.9.1: "we recommend that: prior to construction, Sierrita should file a statement with the Secretary documenting its consultations with CBP and other applicable law enforcement agencies regarding its Security Plan."

4-175 / 4.9.2: "we recommend that: prior to the close of the draft EIS comment period, Sierrita should file with the Secretary a write-up describing the criteria for and sequential timing of each type of restoration measure to be installed during construction. The write-up shall address backfilling and final grading (e.g., subsoil and topsoil replacement); revegetation measures (e.g., seeding, planting, transplanting); installation of deterrents to the unauthorized use of the right-of-way (e.g., dirt/rock berms, log barriers, signs, locked gates, mounds/depressions); and placement of permanent erosion control devices (e.g., slope breakers, rock armor/riprap)."

We appreciate that FERC's record will remain open and that the public may still offer comments to FERC on these various reports following the close of the comment period on the DEIS. However, receiving this information as separate documents straight from the applicant is not an acceptable substitute for what is supposed to occur; that is, FERC receives this information, reviews it in its role as an independent regulatory agency, and presents the information integrated into the rest of the analysis of the DEIS for the public and other governmental agencies to review prior to commenting, thus allowing for revisions prior to the release of the final EIS.

CO5-16

Finally, there is other missing information about important topics not covered in the DEIS. For example, the DEIS addresses the public perception of danger caused by the pipeline only in terms of increased illegal traffic and Border Patrol activity. There is no mention made of the public perception of real physical danger related to the pipeline from the threat of *Coccidioidomycosis* (nearly 16,500 cases in Arizona in 2011, up from 1,475 in 1998; Arizona Department of Health Services).

CO5-17

Nor is the fear of pipeline related explosions (see among others "Entire town of Milford, Texas, evacuated after fiery pipeline explosion, LA Times; 14 November 2013) discussed. As the DEIS states, visitors to the Altar Valley; to its guest ranches, to the National Wildlife Refuge and to its small towns come for solitude, open space, unspoiled views and wildlife. They do not come for a 36" pipeline with a 150 ft. right of way which will be visible in an area "from 5 miles to the horizon."

IV. The Discussion of Monitoring and Mitigation is Inadequate.

In general, the discussion of mitigation measures in the DEIS is woefully inadequate. As FERC knows, the law is clear that:

"[O]ne important ingredient of an EIS is the discussion of steps that can be taken to mitigate adverse environmental consequences. . . . Implicit in NEPA's demand that an agency prepare a detailed statement on "any adverse environmental effects which cannot be avoided should the proposal be implemented," is an understanding that the EIS will discuss the extent to which adverse effects can be avoided. . . . More generally, omission of a reasonably complete discussion of possible mitigation measures would undermine the "action forcing" function of NEPA. Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects. An adverse effect that can be fully remedied by, for example, an inconsequential public expenditure is certainly not as serious as a similar effect that can

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CO5-16

Section 4.12.1.5 addresses the fungi *Coccidioides immitis* and *Coccidioides posadasii*, which can cause *Coccidioidomycosis*, also known as Valley Fever.

CO5-17

Sections 4.13.1, 4.13.2, and 4.13.3 address pipeline construction and operation safety standards, pipeline accident data, and impacts on public safety, respectively.

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CO5 – Altar Valley Conservation Alliance (cont'd)

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only be remedied through the commitment of vast public and private resources." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 at 351-351 (1989).

While some implementing details of carrying out mitigation measures can be developed after the conclusion of the NEPA process, a mere listing of measures is not sufficient. As one court explained:

"Although the standard for evaluating the requisite 'hard look' scope is fact-specific, the Ninth Circuit has established some bright-line rules. Most importantly, the EIS must provide easily-accessible detailed information about probable environmental consequences and potential mitigation measures. *Block*, 690 F.2d at 761. This information must be conveyed within the EIS in plain language so that the general public can 'readily understand' the effects of the proposed plan. 40 C.F.R. § 1502.8. Relatedly, the EIS cannot merely assert a perfunctory description of mitigating measures. *Neighbors of Cuddy Mountain*, 137 F.3d at 1380. 'A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA.' *Id.* (quoting *Northwest Indian Cemetery Protective Ass'n. v. Peterson*, 759 F.2d 688, 697 (9th Cir. 1986)). Rather, mitigation must be detailed with enough specificity to 'ensure that environmental consequences have been fairly evaluated.' *Carmel-By-the-Sea v. U.S. Dept' of Transp.*, 123 F.3d 1142 (9th Cir. 1997).

Further, CEQ has emphasized the importance of mitigation under NEPA, both in terms of promoting efforts to prevent or eliminate damage to the human environment and to meet the requirements of disclosure and analysis for the public, the decision maker and other government agencies. That guidance includes a robust discussion of the need for candor, not only in terms of the ability of the agency to legally undertake or require mitigation but in terms of enforceability and funding for implementation of mitigation commitments. *Memorandum for Heads of Federal Departments and Agencies on the Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact* from Nancy H. Sutley, Chair, Council on Environmental Quality, January 14, 2011.

CO5-18 This DEIS is replete with examples of where FERC staff themselves are requesting additional or revised mitigation plans prior to the close of the DEIS comment period. Much of the information that the FERC staff has requested is precisely the type of information that the informed public, affected parties and local agencies should be able to review and comment on prior to publication of a final EIS. For example, FERC has asked for a revised Post-Construction Vegetation Monitoring Document prior to the close of the comment period. It is good that FERC is asking for a revision; as noted below, we have important concerns about the current draft monitoring plan. However, FERC should review Sierrita's submissions and then provide them as part of a revised DEIS or a supplemental DEIS.

CO5-19 There are a considerable number of examples of pipelines constructed following a process that promised many of the same types of generalized mitigation measures recommended in this DEIS. To our knowledge, there are few, if any, successful examples of on-the-ground mitigation working in the type of arid environment in which we live, especially, for example, in the area of revegetation. FERC should take the high rate of restoration failure experienced with pipeline projects in Pima County into account in evaluating the environmental effects of the proposal and in shaping a monitoring and mitigation program. This information is essential to a reasoned decision by FERC. If FERC believes there is information demonstrating that revegetation has been successful in the types of ecosystems present in the Altar Valley, it should include that information in a revised DEIS or a supplemental DEIS. 40 C.F.R. § 1502.22(a).

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CO5-18 See responses to comments PM1-3 and NAT4-3.

The AVCA's comment regarding a supplemental draft EIS is noted.

CO5-19 As acknowledged throughout the EIS, some affected vegetation types may be re-established in 2 years or less; however, species richness may take longer to recover, ranging from an average of 2 to 13 years. Other vegetation types, however, are acknowledged to take an average of 76 years to obtain full establishment of perennial plant coverage and 215 years to recover species composition typical of undisturbed areas.

The FERC staff's analysis of the Project impacts and Sierrita's proposed mitigation measures is based on extensive previous pipeline experience. The FERC has analyzed thousands of pipeline projects. However, we acknowledge that given the amount of time it takes to re-establish vegetation in the arid southwest (up to 76 to 215 years), the limited number of pipeline projects in the general project vicinity, and the fact that most have been in operation for only 50 years, it is unreasonable to expect that the known examples would have yet achieved successful restoration. While the impact may be long-term to permanent, it is not necessarily a failure. The FERC and federal land-managing agency would determine what is considered "successful" restoration. We also note that other projects not under FERC's jurisdiction have different requirements that cannot be compared to a FERC-regulated interstate pipeline in terms of restoration.

FERC can provide examples of numerous pipeline projects nationwide where soil stability and erosion have been successfully mitigated. Although FERC has not overseen construction and restoration of any projects specific to the Altar Valley, we have overseen construction and restoration of projects in the southwest and other arid climates. Three examples are:

- EPNG's Ducto de Nogales Lateral, Meter Station, and Border Crossing (FERC Docket Nos. CP01-41 and CP08-284) in Santa Cruz County, Arizona
- TransCanada Pipelines Limited's North Baja Pipeline Project (FERC Docket No. CP01-22) in La Paz County, Arizona and Riverside and Imperial Counties, California; and
- EPNG's Willcox Lateral 2013 Expansion Project (FERC Docket No. CP12-6) in Cochise County, Arizona.

We note that these projects have illustrated that revegetation and soil stability can be achieved, and in areas where those parameters have not yet been met, FERC continues to monitor and request necessary remediation or corrective actions.

CO5-20 See response to comment CO5-19. The AVCA's comment regarding a supplemental draft EIS is noted.

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-21 While the conclusions in the DEIS are based on the premise that mitigation will be implemented and will be effective, the much more realistic premise is that the mitigation will not be implemented as FERC envisions it, and very importantly, even if it is, it will not be effective. Thus, along with reconsideration of the rosy projections that FERC presents in the DEIS, we ask that FERC supplement this DEIS with analysis and conclusions premised on the very reasonable notion that mitigation will not work in a number of key areas, including erosion, revegetation, and habitat disturbance. We respectfully remind FERC that if information relevant to reasonably foreseeable significant adverse impacts cannot be obtained, the agency has a responsibility to state that, summarize the existing credible scientific evidence which is relevant to the matter, and base its evaluation on research methods or theoretical approaches generally accepted in the scientific community. In this circumstance, moreover, the legal definition of "reasonably foreseeable" includes impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason. 40 C.F.R. § 1502.22(b). Here, we believe it is much more reasonable to predicate analysis on the probability that revegetation efforts will fail than it is to base conclusions on the remote possibility of their success.

CO5-22 The discussion of monitoring is also significantly incomplete and fails to respond to earlier comments regarding the need to establish a monitoring process that involves both public and private affected parties. Various suggestions have been made to FERC and Sierrita on how this could be accomplished, including comments made at the public meeting held by FERC in June, 2013. None of these ideas have been incorporated into the DEIS as part of an alternative.

AVCA recommends that:

- The monitoring and adaptive management program be expanded to include specific criteria for success and measurement techniques related to surface water and erosion and access management, in addition to vegetation.
- The monitoring and adaptive management personnel be composed of a stakeholder team representing at minimum Kinder Morgan, FERC, ASLD, NRCS, AVCA, Pima County, and BANWR.
- Monitoring and adaptive management activities, administrative and facilitation support for the above-mentioned team, and necessary on-the-ground mitigation treatments should be fully funded by Kinder Morgan, with financial support guaranteed by a bond or other legal and financial mechanism to guarantee Kinder Morgan's financial backing for the life of the project.

V. There Are Important Errors in the DEIS That Lead to Significantly Mistaken Conclusions

CO5-23 It appears that much of the information about rangeland history and health originates in the US Fish and Wildlife (2003) source, which is the BANWR comprehensive management plan. Given that the DEIS fails to fully analyze the eastern or highway route that would cross the BANWR, and that BANWR is involved in the preferred western route only with regard to access roads, it is inappropriate to use the BANWR comprehensive plan as a primary information source for lands outside the boundaries of BANWR.

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CO5-21 Analyzing a project in which the mitigation measures would fail would be the equivalent of analyzing a project in which no mitigation is proposed at all. This is not the case for the Project and our EIS. The EIS is comprehensive and thorough in its identification and evaluation of the environmental impacts of the proposed Project and feasible mitigation measures to reduce those effects whenever possible. Sierrita's construction and restoration plans contain numerous mitigation measures to reduce Project-related impacts and promote revegetation of the Project area following construction. Regardless, NEPA does not require the decision-maker to prohibit adverse environmental effects.

Sierrita would be required to ensure its Project follows the construction procedures and mitigation measures described in its applications and supplements including responses to staff data requests and as identified in the EIS, unless modified by any Order, and fulfills the intent of its various Project-related plans. Failure to meet certain performance standards would result in issuance of noncompliance reports and, if the violation is repeated, could result in a stop-work order or enforcement actions by the FERC.

Also see response to comment SA6-12.

CO5-22 See responses to comments PM1-47, FA3-4, SA6-12, and CO5-8.

CO5-23 We assert that the land uses and history of the land on the BANWR, which is only a few hundred feet from the Project at some locations, is similar to the areas outside of the refuge and, therefore, reference to the rangeland history and health of the Altar Valley as described in the FWS' CCP for the BANWR is appropriate.

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-24 The DEIS analysis treats the project area in a uniform manner, and fails to recognize that there are extreme differences within the project area related to land use. AVCA suggests that there are three different categories of land use: 1) Developed portion with varying levels of residential and commercial activity between roughly pipeline miles 0 - 18; 2) Highway / utility corridor portion between roughly pipeline miles 18-30; and 3) Greenfield portion stretching from the intersection of the preferred alternative with the Elkhorn Ranch Road south to the border, roughly pipeline miles 30-59. FERC's failure to distinguish between these different areas of land use results in a particularly inappropriate characterization of the "greenfield" portion of the project area.

CO5-25 The DEIS analysis of rangeland health, which is particularly relevant to the greenfield portion of the preferred alternative, is based inappropriately on BANWR information, (which in AVCA's opinion fails to acknowledge the complex historical interactions of human use, climate, and range management knowledge) and completely fails to recognize the context of overall improvement in rangeland health that has been occurring in the Altar Valley, particularly since the 1970s drought. These improvements have been largely due to cooperative work between the agricultural operators and the US Natural Resource Conservation Service (NRCS) that involves rangeland health monitoring, Coordinated Resource Management Planning, and provision of technical assistance for ranch and land management activities. AVCA and NRCS will be the first to admit that the Altar Valley remains a work in progress with much work to be done. Surface soil loss, erosion and mesquite encroachment are serious environmental challenges. The existence of these problems makes the valley all the more susceptible to additional environmental impacts from a project such as the proposed Sierrita Pipeline. That said, the Altar Valley is a rarity in today's heavily populated world in that *it provides the potential for continued restoration and ecological enhancement* that benefits wildlife habitat, water quality and quantity, carbon sequestration, food production, and profound human experiences derived from time outdoors engaged in recreation whether it be hunting, hiking, or visiting one of the valley guest ranches.

CO5-26 With regard to human foot and vehicle use and potential control of unauthorized use in the project area, the absence of differentiation between the different portions of the project area is very problematic. FERC has whitewashed this issue by characterizing the entire area in the same way and by simply not looking more deeply at travel patterns in the valley. The analysis fails to recognize that unauthorized use in the highway/utility portion of the project has a much better chance of being enforceable due to visual continuity between the pipeline corridor and the Highway 286, which is patrolled many times a day by Border Patrol and occasionally by the Sheriff or other law enforcement. The highway/utility corridor may attract local ATV recreational users, but this use could likely be controlled by fencing. In terms of people or drug smugglers, this route is visible to law enforcement and/or provides few to no advantages over those already available via the highway.

CO5-27 The greenfield portion of the project however, is much more complex. It is true that existing east-west running access roads, all of which Kinder Morgan proposes to use for construction, do have various "tributary" travel ways. These "ranch roads" are used for ranch management, and have become popular areas for hunters to travel and camp. Altar Valley ranchers and the Arizona Game and Fish Department steadily work together to manage this use of the roads. It must be noted however that while there are many of these roads, they are clustered together. There are *very few north / south running travel ways*, and those that do exist are circuitous and difficult to access. *The physical presence of the greenfield portion of the preferred western route and its visual presence will institute a profound change in the direction of travel available and attractive to illegal aliens and drug smugglers, and law enforcement who will follow.* And then once these tracks are created, ranchers and

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CO5-24 Land use categories described in section 4.8.1.1 are consistent with other FERC NEPA documents and are based on National Land Cover Database and review of recent aerial photographs. Section 4.8.1.1 has been updated to acknowledge three distinct areas affected by the Project. Section 4.4.1 addresses the three vegetation biomes affected by the Project.

CO5-25 Section 4.4.1 has been updated to include additional historical information pertaining to the vegetation and land uses of the Altar Valley.

CO5-26 Section 4.9.2 has been updated to acknowledge that areas south of MP 26.0 and not visible from Highway 286 would be more susceptible to unauthorized right-of-way use. This determination is based on FERC staff and Sierrita's discussions with the U.S. Border Patrol. Section 4.9.2 discusses Sierrita's proposed mitigation measures specific to areas south of MP 26.0 that are not parallel to Highway 286.

CO5-27 Section 4.9.1 acknowledges that Highway 286 is the only north-south paved road to the U.S.-Mexico border; that the proposed pipeline right-of-way could increase or refocus illegal activities and crime along the foothills, thus bringing them closer to residences, and could affect land use practices such as agriculture and ranching; that after construction the removal of desert vegetation and any natural obstacles on the Project's cleared right-of-way may potentially attract illegal immigration and human and drug trafficking, which could exist for the life of the pipeline; and if there is any increase in cross-border illegal activity in the Project area, the efforts of the U.S. Border Patrol would also need to increase.

Section 4.9.2 acknowledges that legal users of the area (e.g., hunters) could use the pipeline right-of-way and any routes that are created leading to the cleared right-of-way (e.g., access roads, private roads), and inadvertently create routes for use by illegal immigrants and/or U.S. Border Patrol to pursue illegal users. The combination of these activities and resulting foot and vehicle traffic, left unattended, would likely deter vegetation from becoming re-established along the pipeline right-of-way. These activities would also likely result in increased erosion and channels along foot and vehicle paths due to the sensitive soils, sparse vegetation, and arid desert conditions.

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CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-27 | AGFD lose what little control they have as hunters begin to follow too ... and then more roads
(cont'd) and trails will evolve from the new travel way created by the pipeline route, and so on.

VI. Important Comments Proffered on the Public Record Have Been Totally Ignored in the DEIS.

CO5-28 | AVCA and others have spent a great deal of time providing scoping comments, attending meetings and providing critique of plans provided by Sierrita. The DEIS and Sierrita's plans that were included in the DEIS appendices reflect little of the time and effort the public has invested to inform the process.

For example, the DEIS states that: "Sierrita had discussions with local ranchers and landowners actively working to control erosion in the Project area, and has provided copies of its Plan, Procedures, Reclamation Plan, and Post-Construction Vegetation Monitoring Document for comment (4-19)." AVCA in turn provided a detailed mark-up of these plans to all interested parties via the FERC public process, which were filed on September 17, 2013. The plans included as Appendices D, F, and G to this EIS are identical to those AVCA commented on months ago, and identical to those discussed at the June public discussion of restoration sponsored by FERC. Additionally, AVCA also attended the restoration meeting held by FERC on June 18, 2013 and filed comments on restoration on July 1, 2013. Sierrita has verbally informed us that they are working on responses, but thus far they are not available for public comment. However, once again, Sierrita's responses are untimely; and, following receipt and careful analysis, may also prove to be inadequate as well.

VII. Because of The Fundamental Mistakes Identified Above, FERC's Conclusions about the Significance of the Impacts Are Frequently in Error

CO5-29 | AVCA respectfully disagree with FERC's findings that impacts would be reduced to "less-than-significant levels with implementation of Sierrita's proposed mitigation and the additional measures recommended in the draft EIS" (FERC introduction letter at front of DEIS document). Absent an effective strategy for control of human access, an already challenging restoration/reclamation task becomes even more difficult.

CO5-30 | AVCA shares FERC and Sierrita's concerns about bank erosion and/or scour effects on the pipeline itself; however, we feel that conversations regarding bank erosion and/or scour effects should not be limited solely to the impacts to the pipeline. The impacts to the Altar Valley watershed both within and outside of the right-of-way are likely to be permanent (as defined by FERC in this DEIS) and should be fully recognized. The finding of "less-than-significant" does not acknowledge the permanence of the effect on the watershed.

CO5-31 | The DEIS fails to provide realistic analysis of expected vegetation impacts. The executive summary suggests that "areas disturbed by pipeline construction would begin to resemble the surrounding area after at least 20 years" (p. ES-7); then the Abella (2010) citations speak to longer time frames of "76 years ... [for] full establishment of perennial plant coverage and 215 years to recover species composition typical of undisturbed areas". Throughout section 4.4.8, the DEIS recognizes that climate and a myriad of other influences affect revegetation success.

CO5-32 | AVCA agrees with FERC's finding that "continuous traffic along the right-of-way would result in reduced vegetation and restoration success, if not further deterioration of the disturbed

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CO5-28 | See response to comment CO5-8.

CO5-29 | The AVCA's comment disagreeing with FERC's finding of impacts being "less than significant levels" is noted.

Also see responses to comments PM1-8, NAT4-3, and SA6-15.

CO5-30 | The AVCA's comment disagreeing with FERC's finding of impacts being "less than significant levels" is noted.

Sections 4.2.2, 4.3.2.5, and 4.3.2.6 discuss the impacts associated with Project on surface waters, including bank erosion and scour effects, and erosion control measures to control off-right-of-way impacts.

Also see response to comment FA2-3.

CO5-31 | See responses to comments PM1-8 and SA6-15.

The Executive Summary and sections 4.8.5.1, 4.14.9, and 5.1.8 have been updated to clarify visual impacts and vegetation re-establishment.

CO5-32 | The AVCA's comment regarding foot and vehicle access undermining restoration is noted.

Also see responses to comments PM1-8 and SA6-12.

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CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-32 (cont'd) area through road and/or trail formation ... Furthermore, the area of impact could likely expand as unauthorized traffic from illegal activities ventures out from the right-of-way into adjacent areas, creating a system of trails." The DEIS clearly acknowledges that while "Sierrita [is committed] to implementing mitigation measures during and following construction to deter unauthorized access to the right-of-way," these mitigation measures "may not completely deter off-road vehicle use of pedestrian traffic along the right-of-way." AVCA is very concerned that foot and vehicular access will severely undermine restoration success, and that the DEIS analysis of impacts is inherently flawed in that it assumes that Sierrita's restoration and access management plans will be effective.

CO5-33 The DEIS fails to reference any studies done on restoration and revegetation for the direct and indirect effects of this type of linear project in an arid desert grassland environment subject to monsoon rains. Credible, scientific evidence justifying the many positive conclusions in this DEIS regarding the potential success of that mitigation is essential to a reasoned decision. FERC must either identify such studies and include it in a supplemental DEIS for public review and comment, or follow the steps outlined in 40 C.F.R. § 1502.22 for incomplete or unavailable information, as discussed in Section IV above.

VIII. There are Important Errors in the Cumulative Effects Analysis

CO5-34 The discussion of cumulative effects is significantly flawed because of mistakes and omissions made in the description of the ecology of the Altar Valley and its history. These mistakes and omissions are so fundamental that they undermine the credibility of the rest of the analysis. We have provided (yet another example of FERC's failure to take into consideration public comments) and continue to provide detailed information about the ecology of the Altar Valley and the past and present restoration efforts. This information should be used to correct these mistakes and omissions. New analysis should be done based on accurate information and provided to the public for review and comment.

IX. The DEIS fails to adequately identify and discuss the conflicts between the proposed action and the objectives of affected local, federal and tribal government agencies.

CO5-35 The DEIS fails to discuss the Altar Valley's significant conservation value within Pima County, which has expended considerable resources to develop a Multi-Species Conservation Plan and the Maeveen Marie Behan Conservation Lands System. It also fails to adequately identify impacts that the western route will have on BANWR and on the Tohono O'odham Nation. This is in violation of 40 C.F.R. 1502.16(c) which requires an agency to discuss in an EIS possible conflicts between the proposed action and the objectives of Federal, regional, State and local land use plans, policies and controls for the area concerned. It also violates FERC's responsibility carry out its trust responsibilities to tribal nations.

X. The Analysis of Transboundary Impacts Is Inadequate

CO5-37 The DEIS has a brief discussion of the need to analyze transboundary effects, but fails to adequately analyze them. The text in the current version of the DEIS regarding transboundary effects is vague and conclusionary and uses the same assumption that all mitigation measures will be implemented and will be effective to reach the conclusion that

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CO5-33

We note that FERC experience with pipeline construction and restoration in arid areas has shown that areas can be stabilized and those areas are trending toward successful restorations. Although, as the EIS acknowledges, re-establishment of preconstruction vegetative conditions is a long-term to permanent impact. We also note that we required of Sierrita additional measures beyond what is typical for construction in an arid environment to further promote restoration. Based on public comments, Sierrita agreed to consult with the NRCS and other entities as appropriate to develop specific seed mixes and methods to further promote revegetation. Sierrita agreed to adopt measures that go above and beyond what is normally required of FERC-regulated pipeline projects and would implement adaptive management strategies in the event proposed methods may not be the best suited for an area.

CO5-34

Section 4.14 (Environmental Setting) has been updated to include additional historical information about the land uses in the Altar Valley. Regardless of this additional information, the fact remains that the Project area has been severely impacted by past natural and human actions such as planting of non-native vegetation to assist in preventing erosion, over and uncontrolled grazing, drought, fires, urban and road development, off-road foot and vehicle traffic, and the impacts associated with those activities (e.g., spread of noxious weeds, creation of gullies, erosion, littering). The EIS also acknowledges the current efforts underway to remediate these impacts.

CO5-35

Sections 4.4.2 and 4.4.8.2 address the MSCP and the Maeveen Marie Behan Conservation Lands System lands, and have been updated to clarify the conservation lands system area crossed and its guidelines.

Sections 4.8.2.2, 4.10.3, 4.10.5, and 4.10.6 address Pima County-owned lands, impacts on social services, property values, and publically funded lands.

CO5-36

Sierrita's proposed pipeline route (referred to in the comment as the "western route") would be located outside of the BANWR (with the exception of a few access roads) and the Tohono O'odham Nation and, therefore, would not directly affect these respective lands. Section 4.8.2.1 of the EIS discusses the access road and indirect impacts on the BANWR.

The FERC is continuing its consultations under section 106 with the BANWR and the Tohono O'odham Nation regarding potential impacts on resources of concern to the Nation. We disagree that the FERC has violated its trust responsibilities, and the FERC is continuing to consult with federally recognized Indian tribes with an interest in the Project area.

The FERC has had several meetings and discussions regarding the concerns of the Tohono O'odham Nation and consultations are ongoing.

CO5-37

Section 4.15 discusses the potential transboundary impacts associated with the Project. As stated in section 5.2 under recommendation No. 1, "Sierrita shall follow the construction procedures and mitigation measures described in its

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CO5-37 (cont'd) impacts across the border will not be significant. There appears to have been no effort to reach out to government agencies in Mexico for assistance with this portion of the analysis, despite the fact that it is the actions of a Mexican agency (CFE) that are purportedly the rationale for analyzing only routes that cross at Sasabe.

CO5-38 Further, the DEIS fails to inform the public of the status of Mexico's environmental analysis. FERC states that it "understands" that the Secretaria de Medio Ambiente y Recursos Naturales has granted an environmental permit authorizing construction of the pipeline and that construction there has begun. Prior to issuing that permit, there should have been a considerable amount of work done in compliance with the law in Mexico that requires environmental impact assessment for major projects such as this one, pursuant to Ley General del Equilibrio Ecológico y la Protección al Ambiente. We ask that the environmental impact assessment studies done under Mexico's law be made available to the public and that a map of the pipeline route in Mexico be included.

SPECIFIC COMMENTS ON THE TEXT OF THE DEIS

Specific comments are referenced by: page number / section number / topic.

CO5-39 ES-6 Acreage of impacts on open and developed land

The DEIS states that there would be "impacts on 957.7 acres consisting of primarily open and developed land." The use of the terms "open and developed" does not make sense, as they would appear to be opposites. AVCA recommends that the DEIS recognize that the project occurs in both open and developed areas, but that they are not the same. AVCA recommends that the DEIS clearly differentiate between portions of the project area that are already developed and the area that is open. AVCA recommends that the dividing line between "open" and "developed" occurs when the currently preferred western route alternative leaves the "developed" Highway 286 corridor at the Elkhorn Ranch Road to head south into "open" country that is not developed.

Furthermore, use of land for livestock grazing does not make the area "developed" rather it should be considered "open". An analysis of the Pima County Maeveen Behan Conservation Land System categorization scheme (available at http://www.pima.gov/cmo/sdcp/MSCP/MSCPdocs/MSCP_Public_Draft.pdf) would provide a rigorous scientific basis for a more sophisticated analysis of project impacts relative to land use and its environmental and habitat value.

Section 4.0 Environmental Analysis

CO5-40 4-1 / 4.0 A fundamental flaw in analysis is the assumptions regarding impacts of human foot and vehicular travel on and adjacent to proposed pipeline right-of-way.

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CO5-37
(cont'd)

applications and supplements including responses to staff data requests and as identified in the EIS, unless modified by the Order." This includes measures to control erosion, the spread of noxious weeds, etc. This recommendation would become a condition of any Order issued by the Commission and is enforceable by the Commission.

The FERC has no regulatory authority in Mexico and, therefore, cannot control what mitigation measures the Mexican facilities would or would not adopt to mitigate for transboundary impacts on the United States. Regarding transboundary effects on Mexico, based on the commitments made by Sierrita in its application, data request responses, and various Project-related plans, we conclude that implementation of Sierrita's proposed measures and our recommendations discussed in this EIS would adequately minimize indirect impacts that may occur off right-of-way (e.g., erosion control on the right-of-way would prevent erosion issues off right-of-way) and, therefore, minimize transboundary watershed impacts.

CO5-38

Section 1.1.1 has been updated to note that an environmental permit authorizing the construction of the proposed natural gas pipeline in Mexico has been issued and that construction of the facilities in Mexico is underway.

All facilities constructed in Mexico are outside the jurisdiction of FERC and, therefore, FERC has no authority over what assessments or information is publically available on the facilities in Mexico. Information regarding the Mexican facilities may be requested independently via IENova or the Secretaria del Medio Ambiente y Recursos Naturales.

CO5-39

The acreage reflected and land uses referred to are a combination of the two land uses. They are not one and the same. Grazed lands were included in the "open" land use category. Section 4.8.1.1 defines land use types and table 4.8.1-2 lists the impacts of individual land uses based on Project component. Section 4.4.1 further breaks down impacts by vegetation type.

Section 4.4.2 addresses the MSCP and the Maeveen Marie Behan Conservation Lands System lands. Section 4.8.2.2 has been updated to clarify conservation lands system areas crossed and their guidelines.

CO5-40

See responses to comments CO5-21 and CO5-32.

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-40 (cont'd) FERC states that "conclusions ... are based on [FERC's] analysis of environmental impacts and ... assumptions". AVCA remains extremely concerned that the reclamation and mitigation measures described thus far and the improvements recommended by FERC are unlikely to be successful, particularly given that controlling human foot and vehicular traffic on the right-of-way may well not be possible. Furthermore, the plans that Sierrita has presented thus far are not adequate, as evidenced by FERC's request for revisions by the end of the DEIS comment period. Neither AVCA nor other public entities have had the opportunity to review these updates; and even with review, everyone acknowledges that adaptive management will be essential.

AVCA thus recommends that FERC's analysis of impacts reflect two possible futures:

- one in that assumes reclamation and restoration are successful (that is FERC's current analysis);
- and an alternate future that assumes less reclamation and restoration success.

This less successful restoration future must be fully analyzed, based on the absence of restoration success and human access control at other southern Arizona pipeline locations and the border security challenges of the Altar Valley; and this analysis should stretch beyond the right-of-way to include adjacent lands and include the full scope of indirect and cumulative effects.

CO5-41 4-3 / 4.1.1 Surface contours and drainage patterns

The DEIS states that Sierrita would "would restore surface contours and drainage patterns as closely as possible to preconstruction conditions." This statement is quite vague, especially for steep areas. A more thorough plan should be developed. The degree to which restoration can be done to return the land to "preconstruction" condition determines the significance of impacts of the project and long-term revegetation success and should not be taken lightly.

CO5-42 4-8 / 4.1.3.2 Use of rock excavated from trench

AVCA notes that rock excavated from the trench would either be considered debris and removed from the site, or utilized as a right-of-way deterrent. AVCA agrees that rock could be used as a right-of-way deterrent. AVCA also recommends that strategically placed rock can be a very useful material for erosion control. Thus, right-of-way access deterrent and erosion control goals could be complementary, with careful design and installation. However, the DEIS and supporting plans do not provide adequate detailed information to evaluate what Sierrita plans to do on the ground, much less whether it will be successful. AVCA recommends that proposed use of excavated rock on the project site be described in much more detail. AVCA also notes that erosion control structure building often requires rocks of different and relatively uniform sizes. Sierrita should consider whether re-sizing on-site rock would make it more useful for the possibly compatible goals of access deterrence and erosion control. Sierrita should also consider importing rock to construct permanent erosion control structures. Regardless of the rock source, plans and designs for use of rock should be site specific, clearly documented and available for public review.

CO5-43 4-12 / 4.2.1.1 Analysis of potential for head-cutting not included in DEIS.

The discussion of erosion potential lacks discussion of headcuts and their potential for contributing to erosion impacts upstream and downstream of the right-of-way as well as laterally within the right-of-way.

CO5-44 4-13 / 4.2.1.1 Absence of permanent erosion control structures

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CO5-41 It is unreasonable to assume Sierrita could achieve recontouring and drainage pattern to 100 percent accuracy. Therefore, we found that the usage of "as closely as possible to preconstruction conditions" reflects an achievable degree of recontouring.

CO5-42 See response to comment LA1-14. Section 4.9.2 has been updated to include a table describing the construction and restoration measure and its sequential timing for implementation/installation.

CO5-43 Sections 4.2.2, 4.3.2.5, and 4.3.2.6 discuss how Project activities may contribute to increased sedimentation and erosion, including headcutting and channel scouring both within and off the right-of-way. These sections discuss proposed mitigation to reduce the potential for erosion, which includes installation of berms, installation of rock riprap, and rock terraces as a form of side slope erosion control.

CO5-44 See response to comment LA1-14.

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CO5 – Altar Valley Conservation Alliance (cont'd)

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- CO5-44 (cont'd) Sierrita plans and procedures reference use of temporary structures for erosion control, using temporary tools. FERC should require a more thorough description of permanent approaches to erosion control, using permanent tools such as rock.
- CO5-45 4-14 / 4.2.1.1 Assertion that ephemeral washes would likely be dry
AVCA strongly disagrees with Sierrita and FERC's shared "assertion that ephemeral washes would likely be dry at the time of crossing". Given Sierrita's proposed start of construction in early summer, and in-service project for fall 2014, it appears to that construction would be occurring during the monsoon season. Operational planning and analysis of erosion potential, both short and long term, should provide be based on a more realistic assessment of southern Arizona's potential for quick, hard, unpredictable and rapidly moving summer monsoon storms.
- CO5-46 4-15 / 4.2.1.1 Return of ephemeral wash banks to stable condition
The DEIS and its appendices do not contain clear nor specific information about how Sierrita intends to assure that "ephemeral wash banks would be returned to a stable condition after construction". This is a significant flaw. Many of the DEIS impacts finding appear to be based on the assumption that revegetation measures will be successful; and based on available information AVCA finds this assumption and thus the validity of FERC's analysis to be flawed.
- CO5-47 FERC also fails to include specific criteria about what constitutes stable condition. While there are minimal statements related to revegetation goals ("i.e., that a plant cover similar to that of the areas adjacent to the Project right-of-way that are not disturbed by Project construction has been established" (4-16 / 4.2.1.2)), there are no goals that describe what constitutes "stable condition" from a soil and watershed condition point of view. Watershed stability goals should be available for public review.
- CO5-48 4-15 / 4.2.1.2 Missing details regarding revegetation and soil surface roughening
FERC acknowledges that soils in the project area have "poor revegetation potential" and that "extra efforts and time are necessary to restore these areas to preconstruction conditions"; but FERC does not provide detail about these necessary extras. The DEIS lacks specific information about how soil surface roughening would occur. In addition, how do these measures integrate with temporary and permanent erosion control treatments and access-control treatments? In general, this section exhibits the continued lack of specific definitions of success and specifics about revegetation that are present throughout the applicant's plans.
- CO5-49 4-15 / 4.2.1.2 Monitoring and landowners & partners
There are other landowners in addition to FERC and ASLD who should be involved in evaluating revegetation success, including AVCA, US Natural Resource Conservation Service, Arizona Game and Fish Department, Pima County, and Buenos Aires National Wildlife Refuge.
- CO5-50 4-16 / 4.2.1.4 Soil ripping and plowing details missing
There are many places in the DEIS and Sierrita plans that refer to treatment of the soil surface, such as the contour ripping / plowing referred to in this section. Other sections of the DEIS and Sierrita's various plans refer to other soil surface or surface contour treatments such as soil roughening, water bars, and alternating dips and furrows (for access control).

In general, all treatments of the soil surface need to be integrated and described in full so that it is clear what will actually occur on the ground. Depending on how these treatments lay on the land, they could either help with soil stability and encourage revegetation, or they could diminish stability and increase erosion potential. Sierrita's plans and procedures, the

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CO5-45 See responses to comments PM1-22 and FA3-11.

CO5-46 Sierrita's *Reclamation Plan* and *Post-Construction Vegetation Monitoring Document* identify the procedures that would be used to restore the right-of-way to pre-construction conditions. Sierrita committed to continuing consultations with the Pima County RFCD to finalize appropriate mitigation measures related to wash crossings and riparian habitat, including the use of water bars. Sierrita outlines the various restoration measures that would be used in ephemeral washes and PCRRH, as appropriate, in its Plan, Procedures, and *Reclamation Plan*. Such measures include maintenance of the root crown/structure in PCRRH, the use of water bars, placement of cut woody vegetation along the top of ephemeral wash banks for stabilization, revegetation of PCRRH with conservation grasses and legumes or native plant species, and placement of rocks and surface roughening to impede vehicular traffic. Additionally, the *Post-Construction Vegetation Monitoring Document* has been revised to incorporate monitoring of riparian vegetation, and describes Sierrita's commitment to an adaptive management strategy to achieve successful revegetation. Further, as committed to in its *Reclamation Plan*, Sierrita would monitor the Project for erosion and stabilization issues on a monthly schedule following construction.

CO5-47 Stable conditions after construction of the Project would occur when wash banks are not actively eroding at a rate greater than adjacent upstream and downstream conditions and where lateral migration along the pipeline right-of-way/trenchline is not occurring (i.e., creating new channels). Section 6.0 of Sierrita's *Post-Construction Vegetation Monitoring Document* includes a description of the performance criteria that would be utilized to determine if successful establishment of a perennial desirable plant cover has been accomplished and restoration and revegetation efforts can cease. See also Sierrita's *Reclamation Plan* for a discussion on reclamation from the perspective of erosion and stabilization issues. Sierrita would conduct inspections of the right-of-way both from the air and during general pipeline maintenance on the ground over the lifetime of the Project.

CO5-48 Implementation of the measures identified in Sierrita's Plan, *Reclamation Plan*, *Post-Construction Vegetation Monitoring Document*, and *Noxious Weed Control Plan* would adequately minimize impacts on these soil types and promote restoration following construction. Section 4.9.2 has been updated to include a table describing the construction and restoration measures and Sierrita's sequential timing for implementation/installation.

CO5-49 We agree that there are other landowners in addition to ASLD who should be involved in evaluating revegetation success. As noted in Sierrita's *Post-Construction Vegetation Monitoring Document*, private landowners may request monitoring of revegetation success on their fee land. Sierrita would meet with ASLD and other appropriate agencies periodically to discuss restoration and revegetation success. Should Sierrita personnel, agency

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-49
(cont'd) personnel, or members of the public identify specific areas of concern not included in the monitoring program, Sierrita would assess the success of restoration at such locations and take corrective action if agreed is necessary.

If there are erosion and stabilization issues that are noted and require attention, Sierrita's Operations and Land Department would coordinate with the landowner or land-managing agency to address site-specific issues for the life of the Project. Further, if an issue or concern is identified by a landowner or land-managing agency, Sierrita can be contacted directly at 1-877-598-5263.

Also see response to comment SA6-12.

CO5-50 Section V.B of Sierrita's revised Plan includes a description of the various permanent erosion control measures that would be used on the Project. The FERC does not require the submittal of detailed drawings that show the exact placement and method used to be to control erosion. These details, however, may be required by local soil and/or water conservation agencies during the permitting process. Based on our knowledge and review of pipeline projects, we note that effective erosion control measures must be appropriate for the site based on current, site-specific conditions. Therefore, site-specific erosion control measures would be determined during active construction and restoration, and consist of one or more of the temporary and permanent erosion control measures identified in Sierrita's Plan and Procedures.

Additionally, Sierrita committed to retaining a hydrogeologist during dry wash construction to evaluate onsite conditions. This individual would help evaluate erosion potential, check calculated scour depth/setback distances and make site recommendations. Also, Sierrita's EIs would be responsible for identifying erosion/sediment control and soil stabilization needs in all areas, as discussed in Sierrita's Plan.

Sierrita committed to continuing consultations with the Pima County RFCD to determine when rock water bars and/or riprap would be beneficial as a method to inhibit erosion at dry washes.

Section 4.9.2 has been updated to include a table describing the construction and restoration measure and its sequential timing for implementation/installation.

CO5 – Altar Valley Conservation Alliance (cont'd)

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- CO5-50 (cont'd) DEIS description of the proposed action, and the DEIS environmental analysis should be improved to provide an integrated and detailed description of the proposed action and its impacts.
- CO5-51 4-17 / 4.2.1.5 Use of rock for access control
As noted above numerous times previously, plans for erosion control and access control need to be more specific and as FERC points out in this section, need to be agreed upon with landowners and reflected in specific goals, objectives and monitoring criteria.
- CO5-52 4-17 / 4.2.1.5 Mulch
AVCA notes that mulch will be used. Provide specific about what type of mulch and details about how it would be applied. What measures would be taken to achieve some degree of permanence? Would the mulch be found locally? How would Sierrita insure that invasive seeds or roots would not be mixed into the mulch?

AVCA recommends that rock mulch in the form of properly designed erosion control structures within stream channels and in upland area be used. They are an effective tool whose success has been demonstrated in the Altar Valley.
- CO5-53 4-18 and 4/19 / 4.2.2 Discussion of flash flooding and channel scouring many flaws
One of this DEIS's fundamental flaws is that the intended construction timetable that falls in the heart of the monsoon season. AVCA agrees with FERC's description of monsoon season rains tendency to "[release] large amounts of water ... during rain events in a short period of time". However, FERC's description fails to recognize that these storms can and do move very quickly and unpredictably. The DEIS and Sierrita's plans lack a realistic description of how project environmental and construction personnel will be able to react quickly and accurately. Given Sierrita's construction time frame, AVCA remain concerned that work will go on, regardless of weather, and that it will be difficult to assure that environmental personnel can stop construction during rain events -- or even be able to predict monsoon events.
- CO5-54 AVCA share FERC and Sierrita's concerns about bank erosion and/or scour effects on the pipeline itself; but also assert that these impacts are likely to be permanent (as defined by FERC in this DEIS) watershed impacts both within and outside the right-of-way. While Sierrita has verbally expressed their intent to respond to previous comments AVCA have provided on these topics, and AVCA note that FERC has required improvements, these changes are not yet available and thus not available for public comment as part of this DEIS.
- CO5-55 As FERC notes, and AVCA and others have commented, the temporary erosion control measures and tools proposed by Sierrita "cannot withstand the force of the water flow during flash flood events" nor does AVCA feel that they will stand up to the aridity and tough environment of the Altar Valley. The DEIS states that: "Sierrita had discussions with local ranchers and landowners actively working to control erosion in the Project area, and has provided copies of its Plan, Procedures, Reclamation Plan, and Post-Construction Vegetation Monitoring Document for comment (4-19)." AVCA in turn provided a detailed mark-up of these plans to all interested parties via the FERC public process, which were filed on September 17, 2013. The plans included as Appendices D, F, and G to this EIS are identical to those AVCA commented on months ago, and identical to those discussed at the June public discussion of restoration sponsored by FERC. It is distressing that the response to these concerns is not included in this DEIS. Sierrita has verbally informed us that they are working on responses, but thus far they are not available for public comment.

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- CO5-51 See response to comment PM1-12.
- CO5-52 Sierrita would remove via hydro axe approximately 75 percent of the existing woody vegetation along the right-of-way and incorporate it into the topsoil to serve as mulch. The mulch would assist in reducing both wind and water erosion, including flash flooding events.

As described in Sierrita's Plan, rock that is not returned to the trench should be considered construction debris, unless the rock is to be used to impede access (with landowner approval), or unless approved for use as for some other use on the construction work areas by the landowner or land managing agency. Sierrita also agreed to consider the use of rock terraces to control erosion and stabilize the right-of-way. Other use may include rock mulch as suggested by the AVCA. Landowners have the opportunity to request that site-specific factors and/or development plans for their property be considered during easement negotiations, and that specific measures be taken into account.
- CO5-53 See response to comment PM1-22.

Sierrita committed to maintaining an onsite hydrogeologist that would provide site recommendations for erosion control and soil stabilization at dry wash crossings. Sierrita's EIs would be responsible for identifying erosion/sediment control and soil stabilization needs in all areas. Further, a third-party compliance monitor under the direction of the FERC would be onsite during construction documenting Sierrita's construction and restoration, and FERC staff would inspect the Project area during construction and restoration.

Sierrita would be required to ensure its Project follows the construction procedures and mitigation measures described in its applications and supplements including responses to staff data requests and as identified in the EIS, unless modified by any Order, and fulfills the intent of its various Project-related plans. Failure to meet certain performance standards would result in issuance of noncompliance reports and, if the violation is repeated, could result in a stop-work order or enforcement actions by the FERC.
- CO5-54 Sierrita filed revised restoration plans since issuance of the draft EIS. Also see response to comment CO5-8.
- CO5-55 See response to comment CO5-54.

The referred to "AMEC study" (Scour and Lateral Bank Migration Analysis) was filed with FERC on December 16, 2013, and was developed in coordination with the Pima County RFCD. These plans have been available for comment, and FERC considered all substantive comments received on the study in the final EIS.

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-55
(cont'd) Furthermore, Sierrita has talked for months (since roughly spring 2013) about the "AMEC study" that will be a useful addition to this process, and perhaps our larger Altar Valley watershed planning. AVCA has not seen the AMEC study, nor any draft, nor has any AMEC employee contacted any Altar Valley Conservation Alliance staff person or partner to discuss our watershed projects. In short, Sierrita has talked about talking with us, but there has been very little substantive exchange of ideas. AVCA is very disappointed that they have not yet responded to the detailed mark-up of their plans that AVCA filed in the FERC record, and AVCA feels that FERC could have responded more fully to these comments in the DEIS. In short, discussion is progressing, but slowly, and this environmental review must be supplemented or, at the very least, extended to allow discussion to take its full course.

With all due respect, AVCA desires action and tangible ongoing response to our legitimate concerns. AVCA realizes that there are drainages that are not in ideal condition – that is why AVCA works so hard on watershed restoration, and that is why AVCA is concerned about this project making watershed stability worse than it already is now.

CO5-56 As further evidence of our intense frustration with reclamation / restoration planning for this project, AVCA would like to direct FERC's attention to Sierrita's intention to "armor the banks of dry wash crossings with riprap". While riprap may be appropriate in some settings where the focus is protection from floods, this tool is highly inappropriate in a setting where the aim is revegetation and watershed restoration. Revegetation of channel banks and restoration of flood plain features are the best way to encourage channel stability and watershed stability in open country. AVCA project that flood waters would rapidly eat around riprap, destroying the supposed erosion control treatment, and making the problems even worse. As evidence, there is a rip-rap structure downstream of Highway 286 that began to crumble almost immediately. Two AVCA gabion basket erosion control projects (on the BANVR and the King's Anvil Ranch) have failed in recent years, when water cut around them. These hard-scape type approaches do not integrate with natural drainage dynamics. This is why AVCA have advocated for the use of smaller rock structures for erosion control that *let the water do the work*, as described by watershed restoration and wildlife biologist Bill Zeedyk.

CO5-57 Use of water bars should be described much more specifically and in relation to other soil surface and contour treatments, as mentioned above several times.

CO5-58 4-19 / 4.2.3 Spill prevention compatibility with no vehicular access requirement
Throughout the process, Sierrita has expressed commitment to no vehicular access. Given this commitment, it is not clear how Sierrita would reconcile this stance with a spill or contamination situation that would require "[handling, transporting, and disposal]" of spill or contaminate materials. The EIS should clearly describe how Sierrita would handle, transport and dispose of materials without vehicular access.

CO5-59 4-21 / 4.2.4 Topsoil segregation and dry wash crossings
AVCA agrees with the FERC recommendation that Sierrita take extra precautions at dry washes. AVCA disagrees, however, with FERC's finding that soil impacts would be "temporary". AVCA remains concerned that restoration / reclamation actions will not be successful and that impacts could range from short-term to significant.

CO5-60 4-24 / 4.2.1.1 Discharge of hydrostatic test water
Where would hydrostatic test water be released, and would there be site specific strategies in place to reduce erosion and encourage revegetation at sites?

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CO5-56 Riprap is only one form of stabilization method that could be used.

Based on Sierrita's Scour and Lateral Bank Migration Analysis, Sierrita committed to maintaining an onsite hydrogeologist that would provide site recommendations for dry wash crossings. This individual would help evaluate erosion potential, check calculated scour depth/setback distances and make site recommendations. Also, Sierrita's EIs would be responsible for identifying erosion/sediment control and soil stabilization needs in all areas, as discussed in Sierrita's Plan.

CO5-57 Sierrita would determine temporary and permanent water bar spacings and locations based on the criteria described in its Plan. Water bars are intended to reduce runoff velocity and divert water off the construction right-of-way to a well vegetated area. Temporary and permanent water bars may be constructed of materials such as soil, silt fence, staked hay or straw bales, or sand bags. Sierrita would establish a sediment basin using silt fence, hay bales, riprap, or other materials to help prevent additional erosion off the right-of-way if a well-vegetated area is not available. Water bar placement is slope and soil dependent, with more frequent placement required on steeper slopes.

Also see response to comment LA1-41.

Section 4.9.2 has been updated to include a table describing the construction and restoration measures and Sierrita's sequential timing for implementation/installation.

CO5-58 Sierrita would use vehicles along its construction right-of-way during construction. Spills would be handled in accordance with its SPCC Plan.

During pipeline operation, Sierrita would perform noxious weed control, vegetation monitoring, and general maintenance activities by pedestrian means. Sierrita does not anticipate vehicle use along the permanent right-of-way for monitoring or general maintenance activities following final restoration and clean-up and, therefore, the potential for hazardous spills is not anticipated.

CO5-59 As discussed in section 4.2.4, topsoil excavated from the trench would be stockpiled in a manner that discourages mixing with subsurface soil throughout all construction activities. Sediment barriers such as silt fencing, staked straw bales, or trench plugs would be installed to prevent erosion and siltation from the stockpiles into nearby waterways. Dry wash banks would be restored to pre-construction contours to allow for the existing flow conditions to continue. EIs would monitor and identify areas that appear to be susceptible to erosion and compaction and would implement appropriate mitigation measures to reduce or limit the potential affects. Subsoil and topsoil would be replaced back into the trench in the manner it was excavated (topsoil placed on top of subsoil).

The AVCA's comment regarding impacts on soils is noted.

CO5 – Altar Valley Conservation Alliance (cont’d)

CO5-59 (cont'd)	Since issuance of the draft EIS, Sierrita addressed our comments to further protect topsoil piles from heavy rain, flash flooding, and wind erosion during construction in the monsoon season between June 15 and September 30, as noted in Sierrita’s revised Plan. Section 4.2.4 has been updated to include this information.
CO5-60	Table 4.3.2-4 lists hydrostatic and dust control water discharge locations. As stated in the <i>Hydrostatic Testing Best Management Practices Plan</i> , Sierrita would implement various procedures to mitigate erosion at the outfall location, including establishing a settling area to allow discharged solids to settle and for water to soak into the ground rather than flowing to ditches, waterways, or along roadways. The dimensions of the settling area would vary with expected volume and flow rate of the discharge. In addition, to prevent scouring by a concentrated water flow, an appropriate nozzle or other dispersion device would be used to moderate the flow from the test manifold.

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-61 4-25 / 4.3.1.3 Las Delicias Well

The location of the pipeline ROW so close to the Santa Margarita wells is concerning, particularly since in that area it would not be difficult to route further away from the wells.

CO5-61 The referred to well on the Santa Margarita Ranch would now be avoided by a route variation that was adopted by Sierrita (see section 3.6).

CO5-62 4-27 / 4.3.1.5 30 day repair window on waterlines

AVCA submits that a 30 day repair window on broken water lines, in this climate, is inappropriate and puts immense burden on the landowner or lessee. In the Sonoran desert, some water lines provide the only source of water in an area for people, livestock and wildlife. Without water, animals could become sick and die. Removing animals from a pasture due to a broken water line caused by pipeline operations would result in damage to carefully planned grazing rotations. It would result in unplanned and uncompensated labor for the ranching operator. Water is not a commodity that any of us living in the Altar Valley can afford to be cavalier about; it can be, quite literally, a life or death situation. Landowners should be alerted within the hour, and the waterline should be repaired within 24 hours. Similarly, the 10 day complaint window for evaluation is equally inappropriate.

CO5-62 Section 4.8.1.1 has been updated to clarify that Sierrita would attempt to repair water line damage resulting from Project construction, at least on a temporary basis, the same day.

CO5-63 4-29 / 4.3.2 Surface water resources and land use

The sole focus on historical cattle grazing as the source of surface water feature change is not accurate. AVCA does not dispute that historical (from the late 1800s and early 1900s) cattle grazing impacted the watershed, but the Commission is not well served if the discussion does not also include information describing how watershed conditions are significantly better now than they were decades ago. See, for example, the 2001 Altar Valley Conservation Alliance Watershed Resource Assessment - Watershed Action Plan and Final Report, attached as Appendix B.

CO5-63 The AVCA's comment regarding improved watershed conditions and the historical use impacts is noted. Section 4.3.2 has been updated to include additional information regarding improved watershed conditions.

Also, the effects of linear features like roads, trails and historical dikes have played a major role in causing erosion features and channelization. The severely incised Altar / Brawley Wash drainage that collects water from the over 600,000 acre Altar Valley watershed was originally a productive floodplain area capable of producing a hay crop. The drainage area was used as a wagon road, plus there were large flood events that caused erosion. As FERC correctly notes, currently vehicle and foot traffic from many sources contribute to keeping these watershed dynamics going in the Altar Valley.

The AVCA's comment regarding vehicle and foot traffic impacts on the watershed is noted.

CO5-64 This is precisely why AVCA is so concerned about the proposed Sierrita Pipeline, and particularly the western route that opens up previously undeveloped country, with relatively few access routes. There is currently no major north - south running access route except the Route 286 corridor, and wise and thoughtful land-use planning for the Altar Valley would maintain that status quo, and help to continue the current trend of bettering the Altar Valley landscape.

CO5-64 The AVCA's concerns regarding opening up previously undeveloped land is noted.

CO5-65 4-32 / 4.3.2.1 Discussion of waterbodies/washes/gully erosion

CO5-66 This discussion should include stock tanks. The discussion of the potential for gully erosion and washes should be more in depth.

CO5-65 Section 4.3.2.4 discusses livestock tanks in the Project area.

CO5-66 Section 4.3.2.5 has been updated to include additional information regarding the formation of gullies.

CO5-67 4-33 / 4.3.2.2 Discussion of floodplain dynamics

The DEIS states that "sheet flooding is also an issue when flood water spreads out over the land surface rather than collecting in defined waterbody channels". The characterization of "sheet flooding" as an issue raises concern, in that sheet flow of water across the soil surface is positive in that it provides moisture for vegetation growth. The objective of the restoration work done in the Altar Valley has been to encourage infiltration and vegetation growth. The DEIS discussion of floodplain dynamics appears to be biased toward channeling water as quickly as

CO5-67 Section 4.3.2.2 refers to "sheet flooding" as defined by the Pima County RFCD, and refers to a "condition where stormwater runoff forms a sheet of water to a depth of 6 inches or more. Sheet flooding is often found in areas where there are no clearly defined channels." The FERC acknowledges that sheet flow (not sheet flooding) provides moisture for vegetation growth and that restoration efforts should maintain these hydrological characteristics in the Project area. This section has been updated to clarify this information.

Sierrita would be required to use, install, and maintain erosion control devices in a manner that reduces runoff velocity, diverts water off the construction right-of-way, and/or prevents the deposition of sediments beyond approved workspaces or into sensitive resources.

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-67 possible and removing it. This is not a good plan. The main objective of any restoration work (cont'd) should be to keep water on the land, and to encourage infiltration to allow for vegetation growth.

When a linear feature, such as a road or pipeline right-of-way, crosses that sheet flow it can interrupt the water flow and redirect that water into the next channel. Sierrita's numerous soil surface and contour treatments could have significant negative or positive effects on sheet flow, hence the importance of thorough, integrated and site specific plans for these treatments.

CO5-68 4-37 / 4.3.2.5 Surface water construction impacts
FERC states that "Sierrita intends to install ephemeral waterbody crossings when they are dry and not flooding." This intention appears very unrealistic, given that construction is bounded by completion of the FERC process and an intended fall 2014 in-service deadline, which will place construction within southern Arizona's volatile and unpredictable monsoon season. Thus, surface water impacts are likely to be significant.

CO5-69 In general, AVCA agrees with FERC's description of likely surface water construction impacts; however AVCA notes that head-cutting is not emphasized. Head-cutting and associated channel incision can rapidly move upstream, quickly increasing the watershed area impacted by excessive erosion. Via the head-cutting process, erosion impacts could move rapidly out of the right-of-way upstream and downstream onto adjacent lands. It is thus very important that AVCA-planned, permanent erosion control treatments be applied, using materials that can withstand time and climate. AVCA recommends use of rock from the project site, supplemented by imported rock. AVCA has previously recommended the names of watershed restoration practitioners and methods that have experience in this area who can assist FERC with effective design. Thus far, watershed treatments are scattered between various sections of the DEIS and Sierrita's various plans, and it is impossible to know whether there is indeed an effective integrated and site-specific strategy in place.

CO5-70 AVCA also agrees with FERC's description of likely impacts associated with unauthorized vehicle and pedestrian access. AVCA is concerned that FERC does not appear to identify and analyze any proposals for mitigation for these problems. It would seem, by virtue of FERC's own commentary on this matter, that impacts to surface water should be considered significant and permanent.

CO5-71 4-38 - 4-44 / 4.3.2.6 Comments on Waterbody construction procedures and mitigation
As mentioned previously, the assumption that waterbodies will be dry seems unrealistic. While it appears that Sierrita has stated that it would stop work during rain events, AVCA is concerned that the project schedule may prevent this.

CO5-72 AVCA understands that temporary erosion control structures such as silt fencing, straw bales, etc are necessary during construction, but AVCA does not feel they will suffice for permanent erosion control. Sierrita's plans need to better differentiate between temporary and permanent solutions to erosion control both within and adjacent to drainage channels.

CO5-73 AVCA recommends use of permanent rock structures that are designed site specifically, to slow water down, encourage infiltration, and provide microclimate that encourages revegetation.

CO5-74 Plant types to be used for revegetation note a preference for woody species, which doesn't make sense given that grasses and forbs are better agents of soil stability than wood species.

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CO5-68 See response to comment CO5-53.

We concluded that implementation of the measures identified in Sierrita's Plan and Procedures would adequately minimize Project-related impacts on surface waters.

CO5-69 Section 4.3.2.5 includes a discussion on headcutting, which if not mitigated, can increase the width and length of gullies. Refer to section V.B of Sierrita's revised Plan for a description of the various permanent erosion control measures that would be used on the Project. Sierrita committed to continuing consultations with the Pima County RFCD to determine when rock water bars and/or riprap would be beneficial as a method to inhibit erosion at dry washes. Also, as recommended by Pima County, Sierrita would use rock terraces as one form of side slope erosion control. Sierrita committed to retaining a hydrogeologist during dry wash construction to evaluate onsite conditions. This individual would help evaluate erosion potential, check calculated scour depth/setback distances and make site recommendations.

CO5-70 As discussed in section 4.9.2, Sierrita proposed several restoration measures to deter use of the right-of-way following construction. Sierrita would not create nor maintain a road for its use along the permanent right-of-way. The EIS acknowledges that the proposed mitigation measures may not completely deter off-road vehicle use or pedestrian traffic along the right-of-way, but they may help to deter vehicular traffic.

CO5-71 See response to comment CO5-53. As stated in section 5.2 under Condition No. 1, "Sierrita shall follow the construction procedures and mitigation measures described in its applications and supplements including responses to staff data requests and as identified in the EIS, unless modified by the Order." Therefore, Sierrita is required to adhere to the commitments made in its construction and restoration plans, regardless of how this may affect the Project schedule.

CO5-72 Section V.B. of Sierrita's revised Plan and section V.B of Sierrita's revised Procedures include a discussion of permanent erosion control measures and installation requirements.

CO5-73 The AVCA's comment on the use of rock structures to slow down water, encourage filtration, and provide microclimate that encourages revegetation is noted. Sierrita committed to continuing consultations with the Pima County RFCD to determine when rock water bars and/or riprap would be beneficial as a method to inhibit erosion at dry washes. As recommended by Pima County, Sierrita would use rock terraces as one form of side slope erosion control site conditions. Additionally, Sierrita committed to retaining a hydrogeologist during dry wash construction. This individual would help evaluate erosion potential, check calculated scour depth/setback distances and make site recommendations.

Also see response to comment CO5-72.

CO5 – Altar Valley Conservation Alliance (cont’d)

- CO5-73
(cont'd)

Sierrita prepared and revised its plans based on consultations with federal, state, and local agencies, landowners, and local community groups, to include many of these measures in an effort to promote revegetation.
- CO5-74

Sierrita developed the seed mix described in section 6.2 of Sierrita’s *Reclamation Plan* in consultation with the NRCS Tucson Field Office, Tucson Plant Materials Center, and the FWS. The criteria utilized to select the seed mixture included restoration performance of the species within a similar habitat based on past pipeline reclamation projects, erosion-control capability, existing plant dominance, availability of seed, wildlife habitat value, and livestock management. Sierrita committed to consulting with the NRCS regarding additional input on seed mix. We recommended in section 4.4.8.2 of the final EIS that Sierrita file revised versions of its *Reclamation Plan* and *Post-Construction Vegetation Monitoring Document* that identifies Sierrita’s final seed mixes and rates developed in consultation with the NRCS and based on proposed seeding schedule(s), and associated updates to the number and location of monitoring plots. In addition, landowners would have input on the seed mixes utilized on their properties.

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-75 While armoring washes may have value in some sites, it may well not be an appropriate technique for this project. Regardless, it should be described site specifically and in a manner that integrates with all other watershed stabilization and restoration practices.

CO5-76 The use of water bars to "divert water off the right-of-way into a vegetated area instead of directly into the ephemeral wash" is not entirely logical. While it is important to avoid "over loading" the wash, water is a critical resource for reestablishing vegetation -- and the vegetation will ultimately be the source of stability. Once again, site specific and integrated discussion of proposed treatments is necessary and thus far not available for review.

CO5-77 The DEIS states that post-construction vegetation management within the right-of-way would be limited to a narrow strip. The DEIS should clearly state how Sierrita proposes to conduct that vegetation management in a manner consistent with their intent to not allow any vehicular access in the right-of-way.

CO5-78 AVCA notes that FERC does not support Sierrita's request for "proposed modifications to [FERC's] Plan and Procedures that would exclude the use of protective and restoration measures at ephemeral washes because these features are anticipated to be dry at the time of crossing" at locations where the wash is connected to and upstream of a stock tank, due to endangered species concerns. AVCA agrees with FERC's concern, but recommends that it be extended to all washes to provide for species protection and overall watershed health. FERC's EIS analysis should not limit this recommendation only to channels with associated stock tanks.

CO5-79 AVCA notes that FERC seeks to encourage better protection of the right-of-way area in the vicinity of Brown Wash, which AVCA agree is a sensitive and particularly valuable habitat area; but simply reducing the right-of-way by 25 feet would not appear to offer any true mitigation of the severe impacts that will occur in this area. It should be noted that impacts to this important area could be completely removed by locating the pipeline in an area already encumbered by development.

CO5-81 AVCA supports FERC effort to urge Sierrita to utilize more the HDD method to cross more drainage channels. This is yet another area where FERC requests significant data and analysis from Sierrita, which should be available for thorough public review and comment.

CO5-83 Analysis of access road maintenance and restoration should include maintenance of existing road drainage structures and design and installation of new drainage structures, such that access roads are left in as good or better shape than prior to construction.

4-43 / 4.3.2.6 Importance of restoration criteria and team approach to evaluating monitoring success

The DEIS states that "if the FERC determines that bank erosion or stream scouring issues are not adequately addressed, Sierrita would be required to remediate the problem. The FERC would also monitor restoration and vegetation success, and FERC, along with the land-managing agency (e.g., ASLD), would ultimately determine if restoration is successful." There are a number of very important points that must be addressed with regard to this statement:

CO5-84

- The DEIS fails to include specific criteria by which the presence or absence of "erosion or stream scouring issues" may be evaluated. While there are basic criteria concerning vegetation, there are none for watershed stability.

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CO5-75 See response to comment CO5-46.

Sierrita committed to maintaining an onsite hydrogeologist that would provide site recommendations for dry wash crossings. This individual would help evaluate erosion potential, check calculated scour depth/setback distances and make site recommendations. Also, Sierrita's EIs would be responsible for identifying erosion/sediment control and soil stabilization needs in all areas, as discussed in Sierrita's Plan.

CO5-76 Sierrita would determine temporary and permanent water bar spacings and locations based on the criteria described in its Plan and on site-specific conditions during the time of construction. Water bars are intended to reduce runoff velocity and divert water off the construction right-of-way to a well vegetated area to reduce erosion potential. Temporary and permanent water bars may be constructed of materials such as soil, silt fence, staked straw bales, or sand bags. Sierrita would establish a sediment basin using silt fence, hay bales, riprap, or other materials to help prevent additional erosion off the right-of-way if a well-vegetated area is not available. Water bar placement is slope and soil dependent, with a closer spacing required on steeper slopes.

Also see response to comment CO5-75.

CO5-77 See response to comment SA6-4.

CO5-78 Comment noted. Sierrita revised its Plan and Procedures to incorporate our recommendations described in the draft EIS. Those washes were selected for the important habitat the stock tanks could provide to federally listed species. We note that FERC requirements allow for standard upland construction practices to take place at a wash if it is not flowing at the time of construction; however, at specific locations, we concluded that additional protections are warranted in the event significant rains occur. These protections have been adopted by Sierrita.

CO5-79 As discussed in section 4.7.1.1, Sierrita developed several mitigation measures, in addition to the reduction in right-of-way width at Brown Wash, to minimize these impacts. Sierrita's *Reclamation Plan* and *Post-Construction Vegetation Monitoring Document* identify the procedures that would be used to restore the right-of-way to pre-construction conditions, including the salvaging and transplanting of Pima pineapple cacti, saguaro cacti, and agave species, and other revegetation techniques to reduce the timeframe for revegetation.

Sierrita evaluated the use of an HDD at Brown Wash, as described in the updated section 4.3.2.6. Because an HDD was determined to be infeasible, we conclude that reducing the right-of-way width is a practicable way to reduce the impacts of the crossing method.

CO5-80 See response to comment PM1-9.

CO5 – Altar Valley Conservation Alliance (cont'd)

- CO5-81 Comment noted. Section 4.3.2.6 has been updated to reflect the results of Sierrita's HDD analysis. This analysis was filed on December 16, 2013, and was available for public comment.
- CO5-82 See response to comment PM1-3.
- CO5-83 As stated in section 7.0 of Sierrita's *Reclamation Plan*, following construction Sierrita would return access roads to their pre-construction condition, unless the landowner or land-managing agency requests that the improvements be left in place, and in accordance with the terms of road use permits.
- CO5-84 Sierrita revised its *Reclamation Plan* to include a discussion on reclamation from the perspective of erosion and stabilization issues. Sierrita would conduct inspections of the right-of-way both from the air and during general pipeline maintenance on the ground of the right-of-way, as required or necessary, over the lifetime of the Project.
- Sierrita coordinated with the Pima County RFCD and applied for a floodplain use permit. The intent of this permit is to minimize damage to the proposed improvements and also to ensure that the improvements do not cause future flooding problems. Further, as noted in Sierrita's Procedures, it would return all waterbody banks to preconstruction contours or to a stable angle of repose as approved by the EI. Sierrita would conduct engineering studies to identify the pre-construction status (e.g., contours) of each waterbody crossing so that the post-construction contour of the waterbody is re-established. Ensuring that impacts on individual waterbodies are minimized reduces the overall impacts on the watershed.

CO5 – Altar Valley Conservation Alliance (cont'd)

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- CO5-85
- By delegating description of what success looks like to landowners, FERC essentially cannot know what the land will look like and thus cannot adequately describe impacts. If the landowner requires a low bar, impacts would be greater, or vice versa.
- CO5-86
- Other landowners and key parties besides ASLD, including NRCS, Pima County, Arizona Game and Fish Department and BANWR, who have a stake in the matter should have a seat at the "evaluation table" along with Arizona State Land Department.

CO5-87 4-44 - 4-45 / 4.3.2.8 Hydrostatic water discharge
FERC should more fully describe and evaluate the site specific impacts of hydrostatic water discharge, and the measures necessary to prevent erosion problems and/or to use the water beneficially.

CO5-88 4-47 / 4.4.1 DEIS failure to rely on the best scientific and commercial data available concerning vegetation resources.
On page 4-47, the DEIS fails to rely on the best scientific and commercial data available. The paragraph quoted below is speculative, inaccurate and soundly refuted by the best available science.

"A study conducted by the Nature Conservancy (Gori and Enquist, 2003) mapped grassland types within the Project area (see figure 4.4-2). This study shows that the majority of the mixed grass-scrub community crossed by the Project (approximately 372 acres) is exotic-dominated grasslands, defined as grassland with 10 to 35 percent total shrub cover, in which mesquite cover is less than 15 percent and non-native perennial grasses are common or dominant. High-quality native grassland and historical grassland are also found within the Project area. The high-quality grassland found in the Project area (approximately 20 acres) is defined as grassland composed of native perennial grasses and herbs with 10 to 35 percent total shrub cover, in which mesquite cover is less than 15 percent, and that has restoration potential. Historical grassland (approximately 28 acres found in the Project area) is defined as former grasslands with greater than 15 percent canopy cover of mesquite combined and/or greater than 35 percent total shrub cover, along with perennial grass canopy cover that is usually less than 1 percent and always less than 3 percent, and type conversion to shrubland that is either permanent or would require 40 plus years of livestock exclusion for partial recovery of perennial grasses."

The NRCS is the government agency with expertise in this subject area and in this geographic location, not The Nature Conservancy. NRCS has developed Ecological Site Guides, which are available on the Ecological Inventory System website, found at: <https://esis.sc.egov.usda.gov/Welcomes/pqReportLocation.aspx?type=ESD>. These guides show what the historic percentages of species should be at a given site. They were developed by NRCS through years of field work and are recognized by most agencies as the guides to use in determining whether a site is close to desirable condition or not.

CO5-89 Instead of making sweeping generalization regarding the project area, the DEIS and the applicant's plans should be focused on assessing each Ecological Site. The term Ecological Site is a complex of soil, parent material, climate, slope and vegetation. (NRCS has a National Range and Pasture Handbook on their website that explains this further.) Actual inventory of what is on each Ecological Site should be done, and then assessed. Post-construction monitoring should be based on each Ecological Site as well. In general, this is one of the biggest shortcomings of this DEIS and the applicant's plans: sweeping generalization made about the project area, rather than individual Ecological Sites.

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CO5-85

Section 6.0 of Sierrita's *Post-Construction Vegetation Monitoring Document* includes a description of the performance criteria that would be utilized to determine if successful establishment of a perennial desirable plant cover has been accomplished and restoration and revegetation efforts can cease. Also refer to Sierrita's *Reclamation Plan* for a discussion on reclamation from the perspective of erosion and stabilization issues. Sierrita would conduct inspections of the right-of-way both from the air and during general pipeline maintenance on the ground of the right-of-way, as required or necessary, over the lifetime of the Project.

A landowner may request, through easement negotiations, different treatments of his/her property. This could include such things as seed mixes, final road conditions, etc. These easement negotiations are between the landowner and the pipeline company and are not subject to review by the FERC. FERC is assuming that the restoration methods proposed and identified in the EIS would be implemented over the entire Project and that property-specific measures would enhance basic mitigation measures and requirements.

CO5-86

See response to comment CO5-49.

CO5-87

Section 4.3.2.8 describes impacts associated with hydrostatic test water discharge. Sierrita's *Hydrostatic Testing Best Management Practices Plan*, prepared in accordance with the ADEQ Arizona Pollutant Discharge Elimination System General Permit No. AZG2010-001, De Minimis Discharge General Permit requirement for a Best Management Practices Plan, includes a more detailed description of the mitigation measures that would be implemented to prevent erosion problems associated with hydrostatic test water discharge. As further stated in section 4.3.2.8, as recommended by the FWS and AGFD in an effort to enhance livestock range conditions and wildlife habitat, Sierrita would discharge hydrostatic test water into livestock tanks if certain conditions are met.

CO5-88

Section 4.4.1 has been updated with additional information from the NRCS and AVCA on vegetation composition in the Project area.

CO5-89

Section 4.4.1 has been updated with additional information from the NRCS and AVCA on vegetation composition in the Project area.

CO5-90

Sierrita committed to consulting with the NRCS regarding additional input on seed mix and seed mix types based on ESDs prior to construction. The number of seed mix types would determine the location of monitoring plots (e.g., 20 upland monitoring plots with a specific number of random plots within each seed mix type area). We recommended in section 4.4.8.2 of the final EIS that Sierrita file revised versions of its *Reclamation Plan* and *Post-Construction Vegetation Monitoring Document* that identifies Sierrita's final seed mixes and rates developed in consultation with the NRCS and based on proposed seeding schedule(s), and associated updates to the number and location of monitoring plots.

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-91

Furthermore, the claim that merely partial restoration of perennial grasses would require 40 plus years of livestock exclusion is founded on myth and speculation that does not rise to the level of the best available science. What the best available scientific information does say, in contrast, is that native perennial vegetation can and has been rapidly restored in the Altar Valley in the presence of controlled livestock grazing. A study done on the impacts of controlled grazing versus grazing exclusion (Holechek, J.L., Baker, T.T., and J.C. Boren, 2005. "Impacts of Controlled Grazing versus Grazing Exclusion on Rangeland Ecosystems: What We Have Learned" New Mexico State University Range Improvement Task Force Report No. 57, http://aces.nmsu.edu/pubs/_ritf/RITF57.pdf) demonstrated that:

"On the Montana Allotment on the Coronado National Forest in southeastern Arizona, a combination of rest rotation grazing and conservative stocking over a 10-year period resulted in rapid improvement of both riparian vegetation and bank characteristics (Fleming et al. 2001). Hundreds of riparian trees became established in riparian reaches where they had been absent 13 years ago. Based on a system using 10 indicators, riparian health on the Montana Allotment was judged to be excellent. This study shows that well planned grazing can result in rapid riparian habitat improvement under some conditions in the southwestern United States. "

In general, FERC's representation of Altar Valley grassland communities is overly simplistic, unsophisticated, and often just plain wrong, as exemplified by the following statement: "However, intense cattle grazing and associated soil disturbance has favored the growth of annual, non-native grasses and shrubs over native bunch grasses in these communities. In addition, fire suppression has protected the growth of non-fire resistant scrub over fire tolerant grasses." The Altar Valley's current condition has evolved from extremely complex interactions related to human land-use, climate, drought, significant weather events, and constantly evolving improvements in range management and ranching "technology" and know-how. Furthermore, enhancing rangeland conditions of the Altar Valley as they pertain to the dynamics between shrubby vegetation and grassland is a complex problem with numerous different possible solutions that are certainly not "permanent" nor dependent on "40 plus years of livestock exclusion for partial recovery of perennial grasses." There are numerous examples of very successful improvement of grassland condition in the Altar Valley, which have been achieved in combination with well-managed grazing of livestock. And what is the point of the reference to mesquite stands near Portal, Paradise and Douglas Arizona? FERC's treatment of rangeland resources in this DEIS is extremely inadequate.

CO5-92

4-50 / 4.4.1 Figure 4.4-2 portraying grasslands crossed by the project should be removed from the DEIS.

Figure 4.4-2 maps "grasslands crossed by the project" and provides a very strong visual comparison of "exotic-dominated grassland" and "high-quality native grassland". The source of these classifications must be identified. It is not clear what purpose it serves. This graphic appears to serve primarily as a means of denigrating the environmental value of the Altar Valley. AVCA is in the processing of furnishing to FERC digital maps that accurately portray vegetation in the Altar Valley, as discussed at the FERC meetings on December 12, 2013 and December 14, 2013.

CO5-93

4.51 / 4.4.2 DEIS fails to adequately describe and analyze the regional importance of the Altar Valley watershed

While the DEIS mentions the existence of the Pima County Multi-Species Conservation Plan and the Maeveen Marie Behan Conservation Lands System, it fails to highlight Altar

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CO5-91

Section 4.4.1 has been updated with additional information from the NRCS and AVCA on vegetation composition and rangeland conditions in the Project area.

CO5-92

Section 4.4.1 has been updated with additional information from the NRCS and AVCA on vegetation composition in the Project area.

CO5-93

Section 4.4.1 has been updated with additional information on vegetation composition in the Project area. The data provided in Pima County's MSCP are cited extensively throughout the draft EIS. Section 4.4.5 includes a discussion on noxious weeds with information provided in the Pima County MSCP; section 4.4.6 includes a discussion of fire regimes and impacts on noxious weeds with information provided in the Pima County MSCP; section 4.5.3 includes a discussion of the wildlife habitat linkages identified in Pima County's MSCP, Sonoran Desert Conservation Plan, and the Pima County Wildlife Connectivity Assessment: Report on Stakeholder Input; and sections 4.4.8.2 and 4.7 include a discussion of wildlife species, range, distribution, habitat, and threats to the species with information provided in the Pima County MSCP.

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-93
(cont'd) Valley's significant conservation value within Pima County. Pima County's highly sophisticated analysis of wildlife habitat potential and establishment of biologically oriented management units that have been integrated into Pima County's planning and zoning regulations must be analyzed in the EIS and should be worthy of graphic representation in the DEIS. Substantive inclusion of this Pima County data would highlight the regional value of the Altar Valley and would paint a more complete picture than the one portrayed in Figure 4.4-2.

CO5-94 4.54 / 4.4.5 Complexity regarding Lehman's love grass
Lehman's lovegrass is correctly described as non-native species and it is indeed present in many areas of the Altar Valley. Decades ago, it was considered a useful tool for rangeland restoration that was recommended as a state-of-the-art solution at that time. The presence of Lehman's in the Altar Valley is and will continue to be a source of management concern for valley ranchers and other resource managers, but it is part of ecological reality in the Altar Valley, and does have a role to play in maintaining and/or enhancing watershed stability. It can have positive benefits in terms of its ability to provide vegetative cover in areas that were severely degraded. In the final draft of the Elkhorn Ranch Coordinated Resource Management Plan completed in fall 2013, the NRCS range conservationist notes that, "Lehmann lovegrass is increasing in some areas of the site, lowering the condition score because it is not native, but contributing to site stability, productivity and watershed function." So while Figure 4.4-2 illustrates the presence of Lehman's lovegrass, it fails to accurately tell the broader and complex story of vegetative change in the Altar Valley.

CO5-95 4-56 / 4.4.6 DEIS fails to use scientifically credible information concerning historical absence of fire.
The following statement is not correct: "Due to livestock grazing practices, fire has been historically suppressed in Scrub-Grasslands, contributing to the expansion and dominance of scrub species" (FWS 2003). This statement is not true. To the contrary, Altar Valley ranchers have been striving to return fire to the Altar Valley since the 1970s. Prescribed fire is a major programmatic emphasis for AVCA, and is currently supported by major grants from the Natural Fish and Wildlife Foundation for purposes of watershed and habitat restoration. Once again, this DEIS lacks a sophisticated and scientifically credible understanding of Altar Valley grassland ecology, its historical evolution, and past and current perspectives.

CO5-96 4-57 / 4.4.8 Possible off-site vegetation impacts
While the DEIS acknowledges direct impacts to vegetation, it fails to acknowledge that there could be impacts to vegetation resulting from the effects of erosion that could spread off site.

CO5-97 4-59 / 4.4.8 Inconsistencies regarding restoration success
The DEIS fails to provide realistic analysis of expected vegetation impacts. The executive summary suggests that "areas disturbed by pipeline construction would begin to resemble the surrounding area after at least 20 years" (p. ES-7); then the Abella (2010) citations speak to longer time frames of "76 years ... [for] full establishment of perennial plant coverage and 215 years to recover species composition typical of undisturbed areas". Throughout section 4.4.8, the DEIS recognizes that climate and a myriad of other influences affect revegetation success.

CO5-98 AVCA agrees with FERC's finding that "continuous traffic along the right-of-way would result in reduced vegetation and restoration success, if not further deterioration of the disturbed area through road and/or trail formation ... Furthermore, the area of impact could likely expand as unauthorized traffic from illegal activities ventures out from the right-of-way into adjacent

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CO5-94 Section 4.4.1 has been updated with additional information on vegetation composition in the Project area. We acknowledge throughout section 4.0 that vegetation in general reduces erosion potential; however, in the context of vegetation resources, we also acknowledge that Lehmann's lovegrass can reduce the diversity of other native species, contribute to more frequent fires, and alter the vegetation community type.

CO5-95 Section 4.4.6 has been updated to clarify that historically fire has been suppressed in the Scrub-Grasslands.

CO5-96 Sections 4.3.2.6 and 4.4.8.2 discuss the potential Project-related impacts on vegetation off the right-of-way. Erosion control measures would be implemented on steep slopes and highly erodible soils to prevent adverse impacts resulting from increased runoff that contribute to poor reclamation potential. Such measures may include the spreading of surface rock or cleared vegetation over the contoured topsoil surface. In addition, waterbars would be constructed on the right-of-way to decrease stormwater velocities, maximize water infiltration, and to remove stormwater runoff from the right-of-way to stable upland discharge points or to a rock pad. Also, as discussed in section 4.2.1.1, Sierrita adopted our recommended modifications to its Plan and Procedures to implement protective installation and restoration measures at ephemeral (dry) washes in anticipation of monsoon season rainfalls, which Sierrita's proposed construction schedule would overlap. The measures outlined in Sierrita's Plan, Procedures, and *Reclamation Plan* are intended to reduce erosion potential both on and off the right-of-way.

CO5-97 The Executive Summary has been updated to reflect the information presented in section 4.4.8.

CO5-98 See response to comment CO5-32.

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-98 (cont'd) areas, creating a system of trails." The DEIS clearly acknowledges that while "Sierrita [is committed] to implementing mitigation measures during and following construction to deter unauthorized access to the right-of-way," these mitigation measures "may not completely deter off-road vehicle use of pedestrian traffic along the right-of-way." AVCA is very concerned that foot and vehicular access will severely undermine restoration success, and that the DEIS analysis of impacts is inherently flawed in that it assumes that Sierrita's restoration and access management plans will be effective.

CO5-99 While we have stated over and over that Sierrita's definition of long-term monitoring is not nearly long enough, we are forced to bring it up again here. As stated above, on page ES-7 the DEIS states, that "areas disturbed by pipeline construction would begin to resemble the surrounding area after at least 20 years" as well as citing Abella's statements of 76 and 215 years. These statements only serve to highlight, yet again, how inadequate Sierrita's claims of 3-5 year monitoring are. If complete restoration will not happen for twenty years (at the least), how is it acceptable for Sierrita to cease monitoring after 5 years?

CO5-100 4-62 / 4.4.8.1 Habitat fragmentation discussion exemplifies inherent DEIS flaws resulting from complete absence of alternatives analysis

AVCA finds the following statement to be significantly incorrect to the point of being ridiculous: "We [that is FERC] observed that the natural landscape crossed by the Project has already experienced fragmentation in the form of existing roads and trails from human and grazing activities, other rights-of-way (e.g. Highway 286, electric line), and clear cuts." (Also, it is not clear what is meant by "clear cuts" in this context, as a "clear cut" usually describes a forest environment where wood is 100% harvested. This term doesn't make sense in this context.) To the extent that the proposed pipeline route follows Highway 286 we agree; but at the point where the proposed pipeline leaves the highway proximate to the Elkhorn Ranch Road, AVCA submits that this description is not correct and that the proposed route should be described as greenfield. If this DEIS analyzed different alternatives, such as the eastern or highway route in comparison to the western route, this is a topic where there would be substantive differences in expected level of impact.

CO5-102 AVCA finds that FERC's determination of "[minimal] impacts of habitat fragmentation and edge effects" is flawed and pre-mature, due to numerous gaps and unknowns in the *Reclamation Plan* and *Post-Construction Vegetation Monitoring Document*. FERC itself has asked for substantive revisions to these plans, and many important concerns raised during the formal scoping period and the summer 2013 discussions concerning restoration have not been addressed by the DEIS nor Sierrita plans and documents.

CO5-103 AVCA acknowledges that further improvements may be to watershed and vegetation condition in the Altar Valley; but despite the work to be done, the Altar Valley offers an unfragmented landscape where that work is possible. A grassland area of this size, populated and managed by people committed to its health and positive future, is an extremely valuable resource. The DEIS completely lacks acknowledgement of the regional land and habitat protection context of Pima County and the border region, a topic that was definitely raised during scoping and throughout this process.

CO5-104 4-64 / 4.4.8.2. Comments on seeding

AVCA is concerned that seeding plans be designed to reflect different ecological sites, as well as planting season. Consider use of the following species that may or may not be included in Sierrita's plans at this time: Red Threawn (*Aristida purpurea* var *longiseta*), Pima pappusgrass (*Pappophorum vaginatum*), Cane Beardgrass (*Bothriochloa bardinoidis*), and Blanket flower (*Gaillardia pulchella*). AVCA is concerned that the seed mixes are primarily

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CO5-99 See responses to comments FA3-4 and SA6-12.

CO5-100 The term "clear cut" has been removed from the description. Greenfield typically refers to an area where the pipeline is not collocated with an existing right-of-way and we agree that, based on this definition, the southern portion of the Project is greenfield.

We also note, however, that based on visual observations that occurred during our helicopter flyover and site visits, there are extensive existing roads and foot trails that occur in the natural landscape within the Project area. Our observations are further supported by numerous comments received in scoping concerning existing unauthorized vehicle and pedestrian access in the Altar Valley, mainly from illegal immigration and drug trafficking, U.S. Border Patrol pursuits, and hunters on all-terrain vehicles, and the potential impact on revegetation and restoration of the right-of-way. Based on conversations with local landowners, state and county agency representatives, and U.S. Border Patrol staff, the entire Altar Valley is used by undocumented immigrants and smugglers to access Tucson and areas north, west, and east. Due to the presence of unauthorized vehicle and pedestrian use of the Altar Valley along with U.S. Border Patrol pursuits and hunters on all-terrain vehicles, the valley is not free from previous disturbance. Environmental impacts associated with these activities include the creation of roads and trails, many along riparian areas and water drainages; disposal of large quantities of personal effects and abandoned vehicles; and large quantities of human waste.

CO5-101 See responses to comments PM1-6 and PM1-10. We also note that the draft EIS acknowledges that some of the impacts, such as fragmentation, security, and unauthorized uses of the right-of-way, could be greatly reduced with the East Route Alternative. Tables 3.5.1-1 and 3.5.1-2 provide a quantitative comparison of the prominent environmental factors of the East Route Alternative and the proposed route.

CO5-102 Sierrita filed information on December 16, 2013, responding to our recommendation in the draft EIS to provide additional information regarding restoration measures.

Also see response to comment PM1-3.

CO5-103 See responses to comments CO5-93 and CO5-100.

CO5-104 Sierrita committed to consulting with the NRCS regarding seed mixes that represent both the spring and late summer/monsoon/fall growing seasons prior to construction.

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-104 | composed of warm season plants and that the plan to seed in the winter will probably not have
(cont'd) | any germination unless the mix is changed.

CO5-105 | 4-64 - 4.65 / 4.4.8.2 Monitoring and mitigation recommendations
| AVCA remains concerned that the monitoring program identified thus far does not
| include robust criteria concerning watershed health. It also contains flaws in the design of the
| study and data interpretation. We have repeatedly stated that our experience on the
| landscape indicates that restoration will be an immense task under the best circumstances,
| and the monitoring proposed thus far only serves to make us more leery of the DEIS's
| general assumption that restoration will be a complete success.

Regarding the institution of a monitoring program, AVCA recommends that:

- CO5-106 | • The monitoring and adaptive management program be expanded to include specific
| criteria for success and measurement techniques related to surface water and erosion
| and access management, in addition to vegetation.
- CO5-107 | • The monitoring and adaptive management personnel be composed of a stakeholder
| team representing at minimum Kinder Morgan, FERC, ASLD, NRCS, AVCA, Pima
| County, and BANWR. These entities should have a seat at the "adaptive management"
| table, and Sierrita should provide adequate financial support for facilitation and
| administration of this stakeholder group.
- CO5-108 | • Monitoring and adaptive management activities, administrative and facilitation support
| for the above-mentioned team, and necessary on-the-ground mitigation treatments
| should be fully funded by Kinder Morgan, with financial support guaranteed by a bond or
| other legal and financial mechanism to guarantee Kinder Morgan's financial backing for
| the life of the project.

CO5-109 | AVCA is concerned about the monitoring method proposed by the applicant. In Arizona,
| the NRCS uses the standard Pace Frequency method to monitor Arizona Rangelands. In the
| Guide to Rangeland Monitoring and Assessment (published by: Arizona Grazing Lands
| Conservation Association and written by Lamar Smith, George Ruyle, Judith Dyess, Walter
| Meyer, Steve Barker, C.B. "Doc" Lane, Stephen M. Williams, James L. Maynard, Dan Bell,
| Dave Stewart, Alfred "Bill" Coulloudon), the summary recommendation for monitoring ground
| cover can be found on page 5, in the first paragraph. The summary recommendation for
| monitoring grassland vegetation also can be found on page 5, in the third paragraph. The point
| data for bare ground and cover (including foliar cover) and meter square quadrats for
| density are standard methods.

The problems with the proposed monitoring program are in the design of the
study and data interpretation:

- CO5-110 | • Design:
| In Sierrita's Post-Construction Vegetation Monitoring Document, Appendix G, on
| page G-8, in paragraph 3, the author states that 20 randomly selected monitoring sites
| based on ecological parameters will be selected. On page G-10, paragraph 5, the
| author states: "Sierrita will follow the guidelines of Herrick et al. (2005b) for
| determining the appropriate number of plots and transects per plot that are
| necessary to adequately monitor a seeding area." The implication is that the 20
| monitoring sites are to be replicates in a statistical analysis across the pipeline right-of-
| way. The pipeline area extends from Three Points with about 12 inches of annual
| precipitation to Sasabe with annual precipitation over 16 inches. The apparent design
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CO5-105 | The EIS does not conclude that restoration would be a complete success.
Sierrita's proposed mitigation measures and plans would adequately and
reasonably minimize Project-related impacts on environmental resources and
promote restoration. We acknowledge unique challenges to restoration that
could occur within the Project area. Also see responses to comments PM1-15
and FA3-4.

CO5-106 | See responses to comments PM1-47, FA3-4, SA6-12, and CO5-8.

CO5-107 | See responses to comments PM1-47, FA3-4, SA6-12, and CO5-8.

CO5-108 | See responses to comments PM1-47, FA3-4, SA6-12, and CO5-8.

CO5-109 | The FERC acknowledges that there are various methodologies for vegetation
monitoring. While we recognize that sound scientific methods are appropriate,
we note that it is at Sierrita's discretion to make changes recommended by
parties other than landowners and land-managing and/or permitting agencies.
We note, however, that FERC is the lead federal agency that would oversee
construction and restoration of the Project.

CO5-110 | Sierrita committed to consulting with the NRCS regarding additional input on
seed mix and seed mix types based on ESDs prior to construction. The
number of seed mix types would determine the location of monitoring plots
(e.g., 20 upland monitoring plots with a specific number of random plots
within each seed mix type area). We recommended in section 4.4.8.2 of the
final EIS that Sierrita file revised versions of its *Reclamation Plan* and *Post-
Construction Vegetation Monitoring Document* that identifies Sierrita's final
seed mixes and rates developed in consultation with the NRCS and based on
proposed seeding schedule(s), and associated updates to the number and
location of monitoring plots. Also see response to comment CO5-109.

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-110 | may be appropriate for *a single ecological site, but is not appropriate to sample across the multiple ecological sites between Three Points and Sasabe.*
(cont'd)

CO5-111 | At each monitoring site there is to be three randomly selected 100-ft transects within the construction ROW and three randomly selected 100-ft transects in the control non-construction ROW. On each transect, plant basal and foliar canopy cover, litter, and bare ground will be recorded for 60 points, 180 points for the three transects. There is no indication that rock or gravel will be recorded. Three meter square quadrats will be randomly selected along each transect. "The 1m² quadrat will be used to measure plant species density, and species richness (Herrick et al. 2005b)." This is a total of nine quadrats for the construction ROW and nine for the control ROW. The 180 points for soil cover attributes is probably adequate, *but nine quadrats per construction ROW and control ROW are not an adequate sample for individual plant species density estimates.*

- **Interpretation:**

CO5-112 | In Sierrita's "definitions of proposed metrics" on page G-9, they state: "Species composition will be determined by listing the total number of desirable species that occur within the 1 x 1-meter quadrants or along the line-point intercept transects within the ROW and off-ROW control plots." We are unsure of what is meant by "listing" here; this is not a definition of plant composition that is used by the Arizona NRCS.

CO5-113 | Also listed under the definitions section on page G-10 is "Frequency is a measure of how many times a species is recorded at a monitoring site....For example, if a plot contains 100 plants and 35 are species A, then the frequency of species A would be 35%." Where did the author find this definition? Again, this is not the accepted standard of range monitoring by NRCS.

CO5-114 | Page G-10: "Dominance will be determined based on aerial foliar cover data from the 180 point transects." This is an inadequate point sample to provide any reliable estimate of individual species dominance status.

In short, neither the design nor the proposed interpretations are appropriate to monitor vegetative effects of the proposed pipeline through the Altar Valley.

CO5-115 | An alternative monitoring plan might be:

The Sierrita plan proposes a plot size of 328 feet x 100 feet or 328 feet x 150 feet for the ROW and off-ROW control plots. A 200-quadrat Pace Frequency sample could be designed to fit within these proposed plots. Four 50-quadrat transects oriented parallel to the ROW could be an option, but specific design at each monitoring location may need to be adjusted to ensure that the ROW and off-ROW control plot are comparable sample on the ecological site. An initial location for each of the monitoring plot locations along the pipeline ROW could be selected on aerial photos with the objective of having at least one plot in each major ecological site along the pipeline. Variability in the ecological condition and other factors may warrant more than one plot per ecological site. Again, we cannot emphasize enough that the broad, sweeping terms that both Sierrita and the DIES have used to characterize the landscape along the pipeline ROW are inappropriate; location specific ecological sites must be used.

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CO5-111 | Comment noted. The FERC acknowledges that there are various methodologies for measuring species composition and richness. Sierrita revised its *Post-Construction Vegetation Monitoring Document* to incorporate comments from the FWS, NRCS, AGFD, and other local agencies, community groups, and landowners. Also see response to comment CO5-109.

CO5-112 | Page G-9 of the *Post-Construction Vegetation Monitoring Document* states that species composition is "the measure of the number of desirable species in the ROW versus the off-ROW control plots." The list would consist of the name of each desirable species found within each plot and then an associated number of individual plants found (e.g., Plains bristlegrass (*Setaria macrostachya*) – 20 individuals). Also see response to comment CO5-109.

CO5-113 | This definition is derived from Herrick et al. 2005 (Volume II) definition of frequency, which states that "plant frequency is the proportion of subplots out of all subplots of a specified size that contain a particular species." Translated to Sierrita's *Post-Construction Vegetation Monitoring Document*, frequency would be measured "based on the occurrence of all desirable species from the data collected in the 1x1-meter quadrats (i.e., subplots). Also see response to comment CO5-109.

CO5-114 | The AVCA's comment on the *Post-Construction Vegetation Monitoring Document* is noted. Also see response to comment CO5-109.

CO5-115 | The size of plots proposed by Sierrita in the *Post-Construction Vegetation Monitoring Document* are consistent with AVCA's proposed plot sizes. The FERC acknowledges that there are various methodologies for vegetation monitoring. Sierrita revised its *Post-Construction Vegetation Monitoring Document* to incorporate comments from the FWS, NRCS, AGFD, and other local agencies, community groups, and landowners. Sierrita committed to consulting with the NRCS regarding additional input on seed mix and seed mix types based on ESDs prior to construction. The number of seed mix types would determine the location of monitoring plots (e.g., 20 upland monitoring plots with a specific number of random plots within each seed mix type area).

We recommended in section 4.4.8.2 of the final EIS that Sierrita file revised versions of its *Reclamation Plan* and *Post-Construction Vegetation Monitoring Document* that identifies Sierrita's final seed mixes and rates developed in consultation with the NRCS and based on proposed seeding schedule(s), and associated updates to the number and location of monitoring plots. Section 4.4.1 has been updated to include additional information of vegetation composition.

Also see response to comment CO5-109.

CO5 – Altar Valley Conservation Alliance (cont'd)

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- COS-116 Plant species frequency is defined as the number of quadrats in which a species occurs divided by the number of total quadrats in the sample. Plant species density and/or distribution are two characteristics associated with changes in plant communities. Species frequency measures the combination of these attributes in a single measurement. Calculation of plant composition using frequency data is not appropriate.
- COS-117 Bare soil and cover attributes from the point data and the quadrat plant frequency data between the ROW and off-ROW control plots at each monitoring plot location may be compared statistically using binomial confidence interval tables using either the 95% or 80% confidence intervals.
- COS-118 4-65 - 4-72 / 4.4.8.2 Construction and Restoration Procedures: DEIS organization becomes very confusing in this stretch.
DEIS impact analysis and description becomes very confusing in this section, whereby numerous vegetation categories such as "vegetation communities of special concern" and riparian habitat" are under heading 4.4.8.2 Construction and Restoration Procedures. There is significant repetition of previously described operational plans, with many previously mentioned flaws.
- COS-119 4.65 / 4.4.8.2 Construction and Restoration Procedures: Avoidance of vegetation monitoring transects is essential
The DEIS states that Sierrita would avoid impacts on vegetation monitoring transects "if possible." There is absolutely no reason for Sierrita to impact ANY of the long-standing vegetation monitoring transects in the Altar Valley. The analysis must explain why, how and whether there is any anticipation that this will occur.
- COS-120 4.66 / 4.4.8.2 Construction and Restoration Procedures: Brown Canyon impacts
Impact analysis of the valuable riparian habitat in the mouth of Brown Canyon lacks sufficient detail. What does "drag section" mean, and how would it decrease impacts? It appears that the right-of-way corridor width would be reduced by 25%. A true impact analysis of multiple alternatives, including both the eastern and western route, would reveal that there are methods of removing impacts to this sensitive area completely.
- COS-121 4-66 - 4-67 / 4.4.8.2 Construction and Restoration Procedures: Ranching concerns
The DEIS and various Sierrita plans frequently speak of Sierrita's commitments, but lack sufficient detail for the public to be able fully understand and/or evaluate impacts. For example, within the p 4-66 riparian habitat discussion there are comments about Sierrita's commitment to "fencing the right-of-way ... to control vehicular access and/or livestock grazing". The proposed right-of-way is located on both private lands and ASLD land that is part of grazing leases, so fencing to control livestock grazing raises big issues. Furthermore, the DEIS states that "livestock management options (e.g., grazing rotation, herd management)" would be evaluated as part of FERC's adaptive management strategy. The analysis must explain how FERC or Sierrita intend to implement changes in grazing practices when neither entity has authority over grazing management. Obviously, this issue is critical to ranchers in the Altar Valley and yet another reason why a supplemental EIS must be prepared for public review and comment.
- COS-122 4-71 / 4.4.8.2 Construction and Restoration Procedures: Continued concern about access
It is interesting to note that FERC acknowledges that "creation of a new pipeline right-of-way and improvement of access roads would create new access into areas," in this case with a

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- COS-116 See response to comment CO5-113. In section 5.1.1 of Sierrita's revised *Post-Construction Vegetation Monitoring Document*, Sierrita identifies species composition, frequency, density, and dominance as proposed metrics that would be utilized to characterize the monitoring plots. Also see response to comment CO5-109.
- COS-117 The AVCA's comment on the *Post-Construction Vegetation Monitoring Document* is noted. Also see response to comment CO4-54. Also see response to comment CO5-109.
- COS-118 Section 4.4.8.2 has been updated to minimize redundancy and clarify headings.
- COS-119 Sierrita would coordinate with individual landowners regarding the avoidance of or minimizing impacts on existing monitoring plots and transects. To date, Sierrita has received hard-copy data containing specific locations of plots or transects, but has not been able to view or survey them in the field.
- COS-120 Section 2.3.2.8 discussed the drag section construction method. Impacts would be reduced by reducing construction right-of-way to 75 feet wide, versus standard 100-foot-wide right-of-way, in addition to the other mitigation measures described in response to comment CO5-79. Sierrita evaluated the use of an HDD at Brown Wash and determined that an HDD was not considered feasible because of the topography of the area surrounding Brown Wash and the potential for bedrock at the HDD depth in the area. Also, in response to our recommendation, Sierrita evaluated the use of an HDD at riparian areas, including Brown Wash, as described in the updated section 4.3.2.6. Because an HDD was determined to be infeasible, we conclude that minimizing the right-of-way is a practicable way to reduce the impacts of the crossing method.
- COS-121 Sierrita is proposing to not develop grazing deferment plans following construction as it contends that deferments or exclusions tend to fragment grazing areas and limit the currant usage. Sierrita would install measures to keep livestock away (e.g., placement of salt licks) in coordination with the landowner or land-managing agency.

As discussed in section 4.8.2.3, Sierrita would secure easements to convey both temporary (for construction) and permanent (for operation) rights-of-way on private lands. Landowners have the opportunity to request that site-specific factors and/or development plans for their property be considered during easement negotiations, and that specific measures be taken into account. This may include the placement (or not) of fencing to control livestock.

- COS-122 As discussed in section 4.9.2, Sierrita proposed several restoration measures to deter use of the right-of-way following construction. Sierrita would not create nor maintain a road for its use along the permanent right-of-way. The EIS acknowledges that the proposed mitigation measures may not completely deter off-road vehicle use or pedestrian traffic along the right-of-way, but they may help to deter vehicular traffic and, therefore, would adequately minimize impacts from the illegal harvesting of plants/wildlife.

Section 3.5 has been updated to note differences in unauthorized right-of-way use related to alternative routes.

Company and Organization Comments

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-122 possible increase in illegal wild harvesting. Once again, there do not appear to be any
(cont'd) proposed mitigation measures described or available. Again, a rigorous set of alternatives and related analysis would likely show there to be significant difference between different routes, such as the eastern or highway route and western route.

CO5-123 4-72 / 4.4.8.2 Construction and Restoration Procedures: Need for additional
information concerning access

CO5-124 AVCA shares FERC's curiosity and concern regarding how Sierrita would access the proposed right-of-way, and supports FERC's request for further information. Given the importance of this topic, AVCA asks that a supplemental EIS be prepared such that the public may understand and comment upon this important topic.

CO5-125 4-73 / 4.5 Wildlife Impacts Generally

The conclusion of the DEIS in regards to effects on wildlife is based on an impossible premise: that populations will be "affected but not adversely affected" by the project. While we recognize that this phrase is a regulatory term under the Endangered Species Act (ESA), the truth is that on the ground, there will be consequences of a project of this size and scope on the species that inhabit the area that will be impacted and with a very few exceptions (i.e. deer species "may" profit from a change in forage after reseeding of the road way) all these consequences will be detrimental to wildlife. This is true not only of species that are listed under ESA, but other wildlife as well.

CO5-126 Effects of the pipeline are skewed as, "Mule and Coue's white-tailed deer would likely decrease their use of an area within at least 200 yards of surface disturbance". The route of the pipeline is approximately 60 miles long; if the width of the ROW averages 150 and the deer avoid a section 200 yards wide on either side of the ROW, an enormous area of deer habitat will be destroyed.

CO5-127 Insufficient data is presented. No thorough EIS should contain the phrases, "no species specific surveys have been conducted [for lesser long-nosed bats or Chiricahua leopard frogs, for example]" (4-112) or "research is lacking on many [bat] species" This research should either be done and FERC should go through the steps outlined in 40 C.F.R. § 15022.22 for incomplete and unavailable information.

CO5-128 The DEIS concludes that all of the detrimental effects of the project will be mitigated by Kinder Morgan in its restoration program. Substantial proof shows however, that there will be little or no restoration undertaken. Pima County states there have been no successfully restored pipeline projects in Southern Arizona. The manager of Sheldon NWR in Nevada says that there has been no invasive weed control monitoring on roads associated with the Ruby Pipeline project (phone interview 24 June 2013).

CO5-129 Throughout the DEIS, there are inconsistencies and misleading statements. For example, on p. 4-91, we read that "A pipeline right-of-way provide an opportunity for developing high-quality feeding areas for deer". Yet, later we read that, construction impacts would include "loss of potential forage within the area of disturbance." And, "the Project would also reduce habitat used by prey species, thereby reducing prey availability..." (4-110)

CO5-130 While "Right of Way" is the term used throughout the study for the 150 - 300 foot wide clearing that will be created, the only realistic term is "road" since Kinder Morgan has presented no feasible plan to stop or prevent foot and vehicular traffic on the pipeline route. A road through the remote areas traversed by the pipeline will open up vast areas of habitat that were

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CO5-123 See response to comment SA6-15.

CO5-124 The AVCA's comment regarding a supplemental draft EIS is noted.

CO5-125 As noted in the AVCA's comment, the phrase "affected but not adversely affected" is indeed a regulatory phrase reserved for use on determinations for species protected under the ESA. The wildlife species discussed in section 4.5 are species that are not protected under the Endangered Species Act, nor listed as state-sensitive species; those species and the potential impacts of the proposed Project on those species are discussed in section 4.7. Section 4.5 describes the potential impacts on wildlife species with the potential to occur in the Project area.

CO5-126 The statement that "mule and Coues' white-tailed deer would likely decrease their use of an area within at least 200 yards of surface disturbance activities (Ward et al., 1980)" does not imply that this habitat would be permanently lost, but rather that mule and Coues' white-tailed deer would be expected to avoid the Project area during construction activities due human presence and augmented noise levels. As stated in the same paragraph, "this displacement would be short-term and animals would likely return to the disturbed area after construction and restoration efforts are complete."

CO5-127 For our NEPA analysis, CEQ regulations do not require surveys as long as the best available scientific information is available to evaluate the species. Sierrita consulted with the FWS on what species-specific surveys were required for ESA species, and conducted the surveys that were required. Where surveys were not required, Sierrita and we used best available scientific information to identify species habitat. As a result, we are able to draw adequate conclusions regarding species impacts.

For non-protected species, such as the bat species referenced by the AVCA in this comment, although data are not available for all wildlife species with the potential to occur in the Project area as acknowledged in this statement, there are sufficient data available on species with similar biology and/or habitat preferences to evaluate the potential impacts on these species from the proposed Project.

CO5-128 See response to comment PM1-33.

CO5-129 Section 4.5 describes the potential impacts on wildlife species with the potential to occur in the Project area, which range from no effect, to adverse, to beneficial depending on their distribution, habitat preferences, and forage/prey species. Note that the magnitude of potential impacts on each species would also vary depending on these factors, as described throughout section 4.5. The statements are not inconsistent, nor misleading. These statements account for different species being impacted differently by proposed construction and restoration methods proposed by Sierrita.

CO5-130 As discussed in section 4.9.2, Sierrita proposed several restoration measures to deter use of the right-of-way following construction. Sierrita would not create nor maintain a road for its use along the permanent right-of-way. The EIS acknowledges that the proposed mitigation measures may not completely deter off-road vehicle use or pedestrian traffic along the right-of-way, but they may help to deter vehicular traffic. Section 4.5.4 addresses impacts associated with increase hunting pressures on game species.

CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-130 (cont'd) previously accessible only by foot, ATV or horseback. Poaching of game, hunting out of season and shooting of non-game animals is already a problem in the Valley and creating access to remote terrain will increase the pressure on all wildlife populations, not just big game animals.

CO5-131 The fact that private landowners will not have legal control over the ROW will increase this pressure. "Increased public access as a result of the newly cleared pipeline right of way could increase poaching of game animals and non-game wildlife." (4.93)

CO5-132 In 2001, Buenos Aires NWR used color infrared aerial photography to map new trails and roads created on the refuge by illegal foot traffic and Border Patrol activity. At this time, there were 1315 linear miles of foot trails (which is 7.2 miles of trails per square mile) and 279 acres totally denuded of vegetation on and along the trails. There were 117 illegal crossing points on the 4.5-mile border with Mexico. Smugglers and drug mules, Border Patrol vehicles and hunters' vehicles will create paths adjacent to the pipeline road which will result in similar devastation.

CO5-133 When asked directly about what plans have been formulated to impede this traffic on the pipeline ROW, Kinder Morgan officials have responded. "All bets are off [to keep vehicular traffic off ROW], "Nothing can prevent foot traffic" and "We can't keep everybody from cutting fences." (public meeting 18 June 2013)

CO5-134 FERC should identify or commission studies on the effects of foot and/or vehicle traffic on wildlife in the desert grassland. Many species in this habitat hunt and forage at night and given the acres totally denuded of vegetation adjacent to trails as documented above, the effect on wildlife is likely to be adverse. Until studies have been presented on this pressure, it is impossible to make any definitive statement about how or to what extent species are affected.

CO5-135 4-76 / 4.5.1 Lack of detailed and site specific analysis in this DEIS
The DEIS fails to distinguish between different portions of the project area relative to human land use and development. The first paragraph on page 4-76 makes numerous general statements and does not "locate" these comments correctly within the overall right-of-way project area. For example, the sentence "as the human population expands, groundwater depletion and springhead use also increases creating subsidence and soil erosion issues and reducing water availability for wildlife use." The DEIS should provide specific locations for issues such as subsidence, rather than attributing this problem to the entire project area.

CO5-136 Another sentence states that "habitat conversion to livestock management can negatively affect habitat of some wildlife species" and finally at the end says that a positive feature of ranching is use of livestock waters for wildlife. AVCA fails to see what these kind of negative statements about ranching and livestock grazing contribute to this analysis of a proposed natural gas pipeline right-of-way and construction project. AVCA theorizes that FERC is attempting to paint a negative picture of the Altar Valley as an area that is already excessively disturbed, such that the addition of a gas line would in theory not be a big deal.

AVCA finds this apparent bias to be unacceptable, and the facts do not support FERC's bias. There are many ways to accurately portray the environmental status of the Altar Valley, such as the myriad of studies conducted as part of the Sonoran Desert Conservation Plan as well as the AVCA resource condition and vegetation maps submitted during scoping.

CO5-137 4-80 / 4.5.2 Lack of logic concerning habitat impacts and wildlife, which are not substantiated by analysis nor data.
AVCA draws attention to the following statement at the top of page 4-80: "We believe that after construction of the Project, the right-of-way would eventually be restored and wildlife
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CO5-131 As discussed in section 4.8.1.1, easement agreements would prohibit certain types of uses from occurring within the permanent right-of-way that could affect the maintenance and safe operation of the pipeline, such as the construction of any permanent aboveground structures (e.g., houses, commercial buildings) or excavation activities. However, operation of the pipeline would not affect other types of land uses or other activities that do not directly disturb the pipeline or operational right-of-way. Most land uses would be allowed to revert to prior uses following construction.

As discussed in section 4.8.2.3, Sierrita would secure easements to convey both temporary (for construction) and permanent (for operation) rights-of-way on private lands. Landowners have the opportunity to request that site-specific factors and/or development plans for their property be considered during easement negotiations, and that specific measures be taken into account.

CO5-132 Comment noted. We note that FERC staff viewed this impact in its overflight assessment, which helped shape our determination of the affected environment as mentioned in the response to comment CO5-100.

CO5-133 Section 4.9.2 identifies Sierrita's proposed measures to deter unauthorized use of the right-of-way following construction. The EIS acknowledges that while Sierrita's proposed mitigation measures may help to deter some vehicular traffic, they may not completely deter off-road vehicle use or pedestrian traffic along the right-of-way.

Based on public comments and our understanding, fence cutting is a common problem that exists in the Project area and would continue to exist whether the Project was constructed or not.

CO5-134 Unauthorized vehicle and foot traffic and associated impacts on desert vegetation and wildlife is an existing and ongoing activity in the Project area that has and would continue to occur regardless of whether or not the Project is constructed. In this context, we evaluated the Project's contribution to the cumulative impacts on desert vegetation and wildlife, which is provided in the cumulative impacts section (see sections 4.14.5 and 4.14.6).

CO5-135 Section 4.5.2 addresses wildlife species impacts based on habitat that exists in the Project area.

CO5-136 Comment noted. NEPA requires an evaluation of cumulative impacts, which is defined by the CEQ as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such actions. Cumulative effects can result from individually minor, but collectively significant action taking place over a period of time" (40 CFR §1508.7). This EIS is structured such that the description of the affected environment provided in section 4.0 includes a discussion of past actions that have contributed to the current state of the

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CO5-136
(cont'd) environment in the Project area. As highlighted by the commenter, and noted through section 4.0, ranching and livestock grazing is a major land use activity that has occurred in the Project area since the mid-1860s to the present day. The FERC acknowledges that ranching and livestock grazing practices have changed over the years, and we updated section 4.0 to include additional information on more recent practices that are being implemented in the Project area; however, the FERC also acknowledges that these practices continue to impact the resources and wildlife in the affected environment, in both positive and negative ways, as highlighted in this section. The benefits or impacts that result from current land uses are very much dependent on species-specific needs and tolerances.

Also see responses to comments PM1-7 and CO5-132.

CO5-137 As described in section 4.0, impacts were considered long-term if the resources would require more than 3 years to recover, but would be expected to recover during the life of the proposed Project. Permanent impacts would occur as a result of activities that modify resources to the extent that they would not return to pre-construction conditions within 50 years, such as clearing of old growth forest or conversion of land to an aboveground facility site. We determined that after construction of the Project, the right-of-way would be restored and wildlife habitat would return to its original condition; however, the timeframe for that to occur would vary depending on the vegetation and habitat type, as described in section 4.4.8.

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(cont'd) habitat would return to its original condition; however, this would be a long-term to permanent impact in riparian areas and in vegetation communities dominated by desert scrub, *as these areas may not return to their original character and function for several decades or longer* [emphasis added]. This sentence contradicts itself, and exemplifies the flaw of this DEIS and project as a whole.

CO5-138 4-81 / 4.5.2.1 AVCA disagrees with FERC's finding that "the Project would minimize the impacts of habitat fragmentation and edge effects".
Moreover, on page 4-84, FERC acknowledges that "the Project would contribute to fragmentation of these and other unidentified wildlife movement corridors." FERC's projection of minimal impacts is flawed, in that it assumes that Sierrita's restoration program will be effective. A more realistic analysis would involve displaying alternative futures, whereby restoration was successful and where restoration is not successful. In addition, a robust analysis of alternative routes would likely show major differences between the eastern highway route and the western route.

CO5-139 4-88 / 4.5.3 Riparian habitat mitigation clarity lacking
The DEIS describes a method in which "to reduce the overall impacts on riparian areas, Sierrita would set cut woody vegetation along the top of the ephemeral wash banks above the normal high water line to provide stabilization, obstruct vehicular traffic, provide cover, and increase wildlife habitat value." AVCA would like to see designs specifications for this treatment that are supported by the best available science concerning habitat and watershed restoration and reclamation. The applicant's methods are not integrated in a way that results in a comprehensive plan, as mentioned numerous times within these comments.

CO5-140 4-90 / 4.5.3 Indirect impacts to wildlife
FERC correctly notes that "indirect impacts to big game species could include those caused by human activity." AVCA disagrees, however, with FERC's assessment that "displacement would be short-term and animals would likely return to the undisturbed area after construction and restoration efforts are complete". First, as FERC state numerous times, there is likely to be ongoing human use of the right-of-way corridor, particularly given the absence of clear plans about how to prohibit access; and second, according to FERC's own statements, restoration may take many, many years.

CO5-141 4-92 / 4.5.5 Predators, Furbearers, Game Birds and Small Game Species
"Because no perennial or intermittent waterbodies are found within the Project area that would support waterfowl, hunting of waterfowl is not addressed; however, it is possible that waterfowl species identified...pass through the Project area in route to foraging or nesting sites."

In fact, the BANWR has identified 27 species of ducks and geese on the refuge, three of which (mallards, cinnamon teal and black-bellied whistling ducks) have breeding records in the area. 46 species of shorebirds have been identified, 7 of which have breeding records.

Flocks of waterfowl use in-ground tanks within the project area for feeding and they are essential as a stopping point for migratory ducks and other waterfowl to rest during migration. Increased access to these remote tanks and ephemeral waterholes will flush these birds and deny them the respite they need to fortify themselves during the stressful period of migration. See Figure 1 on page 35.

Insufficient data is presented on the effects of migrating waterfowl and other species in this report.

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CO5-138 See response to comment CO5-14. The draft EIS acknowledges that some of the impacts, such as fragmentation, could be greatly reduced with the East Route Alternative.

Also, see response to comment CO5-21.

CO5-139 Sierrita committed to continuing consultations with the Pima County RFCD to finalize appropriate mitigation measures related to wash crossings and riparian habitat. The placement of cut woody vegetation within the right-of-way following construction is intended to provide stabilization, obstruct vehicular traffic, provide cover, and increase wildlife habitat value as an interim measure while other revegetation and restoration measures (e.g., transplanting and seeding) and natural processes are establishing. These measures are detailed in section 4.3.2.6 and would be implemented, as appropriate, based on site-specific conditions at the time of construction/restoration.

Section 4.9.2 has been updated to include a table describing the construction and restoration measure and its sequential timing for implementation/installation.

CO5-140 FERC acknowledges that unauthorized use by human and vehicle traffic could have similar impacts on big game species as those described in section 4.5.4; however, Sierrita adopted measures to discourage the use of the right-of-way. Specific timeframes of restoration are discussed in section 4.4.8.

CO5-141 Section 4.5.7 discusses Sierrita's proposed mitigation measures to protect migratory birds, including waterfowl species that are identified as having the potential to occur in the Project area as listed in table 4.5.1. Sierrita has been coordinating with the FWS to address the Project's potential to impact birds protected by the MBTA. The MBTA provides federal protection to all migratory birds (such as migrating waterfowl), including nests and eggs.

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CO5-141
(cont'd)



Figure 1: Photograph taken with game camera on 21 Nov 2013 at an in-ground stock tank within the path of the western route showing a flock of ducks resting and feeding.

CO5-142 4-93 / 4.5.6 More contradictions related to access management

After citing numerous ways in which big-game wildlife species could be impacted (increased harvesting levels, increased recreation, poaching, etc.), mostly due to increased human use of the proposed right-of-way and the improved access roads, FERC claims that "Sierrita would adopt right-of-way restoration methods that are anticipated to deter post-construction use of the right-of-way by authorized and unauthorized users." Yet previously, FERC has made numerous comments about the likelihood of access control not working. The EIS also needs to explain who "authorized users" would be and how access would be achieved for these users given statements about blocking access.

CO5-143 4-93 / 4.5.7 Golden Eagles and Caracara

The DEIS states that "breeding habitat for the golden eagle is within 10 miles of the Project area..." Again, increased access to remote nesting sites will have a detrimental effect on eagle populations.

CO5-144 Crested Caracara, a large raptor related to falcons, is also identified within the project area and has breeding records (U.S. Fish and Wildlife Service publication "Birds of Buenos Aires National Wildlife Refuge"). Caracaras are "rare" in Arizona and uncommon in all of the US with the exception of Texas (National Geographic Field Guide to Birds of North America).

"Sierrita's construction schedule would overlap with the nesting season for many migratory bird species in the Project area..." "...construction activity could result in nest abandonment, overheating, chilling or desiccation of unattended eggs or young causing nestling

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CO5-142 Section 4.9.2 has been updated to further describe authorized users.

CO5-143 Comment noted. Sierrita has been coordinating with the FWS to address the Project's potential to impact bald and golden eagles. As described in section 4.5.7, there is no nesting habitat for golden eagles within the Project area (golden eagles nest on slopes greater than 50 degrees in the mountains); only foraging habitat.

CO5-144 As identified in table 4.5.7-1, a crested caracara individual was observed in the vicinity of the Project area during field surveys; however, a crested caracara nest was not observed within the Project area. The BANWR provided information that nesting crested caracaras have been detected both east and west of Highway 286 in the vicinity of King's Anvil Ranch; this information has been incorporated into table 4.7.2-1 of the final EIS. Due to the similarity in nests used by various raptor species, if a stick nest is observed without an individual present, surveyors would be unable to determine which species is utilizing the nest. Sierrita committed to conducting pre-construction surveys to document local occurrences of nesting birds, including raptors, unless construction would take place outside of the nesting periods. Sierrita has been coordinating with the FWS to address the Project's potential to impact birds protected by the MBTA, including raptors such as the crested caracara. The MBTA provides federal protection to all migratory birds, including nests and eggs.

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- CO5-144 (cont'd) mortality; premature fledging and/or ejection of eggs or young from the nest." Of particular interest here is the item 19 "unidentified raptor nests" listed in Table 4.5.7-2.
- CO5-145 The DEIS does not demonstrate that the mitigation measures offered by Kinder Morgan are sufficient to counter the adverse effects to breeding species, especially those of particular concern as listed above.
- CO5-146 4-106 - 4-111 / 4.7.1.1 Jaguar - Species and Proposed Critical Habitat
While jaguars are extremely uncommon in the US, jaguar Macho B did travel up and down the Baboquivari Range and across to the east, as documented by various photos as well as his eventual capture. This individual's long life in the valley (beginning in 1996 up to 2009) speaks to the value of the area for large wildlife.

"Sierrita would impact approximately 75 acres of proposed jaguar critical habitat..."
Jaguars are top predators with a range that covers hundreds of square miles. The individuals that have been sighted in Arizona are almost certainly males wandering into the mountainous areas of the Altar Valley utilizing wildlife corridors to move north from Mexico. The individual animals which have been identified in the area have been photographed and tracked but there is insufficient data to fully document their movements, behavior or even numbers. An attempt to collar a jaguar for this purpose was spectacularly unsuccessful.

Figure 4.7.1-1 clearly shows the proposed pipeline route running parallel to "jaguar suitable habitat" and, in the southern section, directly through this habitat. The pipeline will also run through the proposed critical habitat for this species (Figure 4.7.1-2)
The DEIS lists, "ongoing illegal immigration, drug and human trafficking, and U.S. Border Patrol activities" (all of which would be effects of the project) as contributing factors in habitat fragmentation which would limit the movement of these animals. "...the Project would result in the removal of vegetation...which would reduce canopy cover required by jaguars to move between habitats and to hunt. The Project would also reduce habitat used by prey species, thereby reducing prey availability and hunting success."
- CO5-147 Ocelots are glossed over in the report because the species is "at the northern extent of its range in the Project area". This is incorrect. A dead ocelot, confirmed by Arizona Game and Fish Department to be a wild ocelot, was found near Globe, Arizona in 2010 (<http://azgfd.net/artman/publish/NewsMedia/Arizona-Game-and-Fish-collects-ocelot-found-dead-near-Globe.shtml>). Ocelots have been sighted in nearby areas, (see among others: "In Southern Arizona, Rare Sighting of Ocelots and Jaguars Send Shivers"; New York Times; 4 Dec. 2011) but again, no animals have been collared or studied in depth. FERC should obtain sufficient data to make scientifically credible statements about their range, movements or numbers in this project area. .
- CO5-148 4-112 - 4-114 / 4.7.1.2 Lesser Long-nosed Bat
"The degradation of foraging habitat and removal of key nectar providing species" are some of the impacts of the project. FERC states that "no species specific surveys have been conducted". The comments on bats in general are equally unsubstantiated. No mention is made, for example, of white nose syndrome in bats.

White-nose syndrome (WNS) is an emergent disease of hibernating bats that has spread from the northeastern to the central United States at an alarming rate. Since the winter of 2007-2008, millions of insect-eating bats in 22 states and five Canadian provinces have died from this devastating disease. The disease is named for the white fungus, *Geomyces destructans*, that infects skin of the muzzle, ears, and wings of hibernating bats.

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- CO5-145 Sierrita would continue to coordinate with FWS to address the Project's potential to impact birds protected by the MBTA and the BGEPA. We conclude that through our coordination with the FWS, and subsequent mitigation measures and practices to be utilized by Sierrita with respect to the protection of migratory birds, impacts on migratory birds would be adequately minimized.
- CO5-146 The AVCA's comments regarding the jaguar and designated critical habitat are noted.
- CO5-147 Ocelots are extremely rare, but FWS documentation on this species indicates that their range includes southern Arizona. Consultation with the FWS is ongoing; however, preliminary correspondence did not include the ocelot as a species of concern for this Project.
- CO5-148 See response to comment CO5-127.

A discussion of WNS has been added to section 4.5.2 of the final EIS. Also note that on September 9, 2013, the FWS proposed to downlist the lesser long-nosed bat to threatened primarily due to additional information that indicates the species may be more abundant than was known at the time of listing (78 FR 55050). Section 4.7.1.2 has been updated accordingly. Sierrita and FERC will continue to consult with the FWS over the impacts on lesser long-nosed bats and potential mitigation measures.

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- CO5-148 (cont'd) The USGS National Wildlife Health Center (NWHC), along with the U.S. Fish and Wildlife Service and other partners continue to play a primary role in WNS research. Studies conducted at NWHC led to the discovery, characterization, and naming of the causative agent (the cold-loving fungus *G. destructans*), and to the development of standardized criteria for diagnosing the disease. Additionally, scientists at the NWHC have pioneered laboratory techniques for studying impacts of the fungus on hibernating bats.
- Despite efforts to contain it, WNS continues to spread. Within the last two years, the disease has been confirmed in several central states, including Alabama, Indiana, Kentucky, Tennessee, and Missouri. High mortality of bats has not yet been reported at these locations, and it remains to be seen if WNS will develop and manifest in warmer parts of the US or other temperate regions of the world with severity similar to that in the northeastern US.
- The DEIS states "Research is lacking on many bat species." There is a very real threat that workers and vehicles will bring this fungal disease into the area. FERC should ensure that the EIS reflects what is known about the possible spread of the syndrome into the desert grassland habitat and assume that it might spread into this area if there is credible evidence to that effect.
- CO5-149 4-120 - 4.122 / 4.7.1.5 Pima Pineapple Cactus
The DEIS should address what measures Sierrita proposes to use to mitigate impacts to Pima pineapple cactus. Which cactus bank would be utilized? How would Sierrita's purchase indirectly impact availability of mitigation bank impacts for other parties?
- CO5-150 4-127 - 4.129 / 4.7.1.7 Sonoran Desert Tortoise
The project "may impact individuals" but we don't know how many there are in the area because "no species-specific surveys have been conducted by Sierrita for this species . . .". These surveys should be done and analyzed prior to determining potential mitigation measures. Table 4.7.1 states that suitable habitat is present in the Project area. "Project impacts may include reduction of foraging habitat, destruction of burrows, and modifications to the species behavior and movement." Mortality of individuals is already present on Highway 286 and unpaved ranch roads. Dumping of hydrostatic water into existing stock tanks, as proposed by Kinder Morgan is a very concerning prospect given the tortoise's well-recognized susceptibility to contamination as are "Unauthorized use of roads and trails, dispersed camping sites, illegal dumping and littering and U.S. Border Patrol enforcement activities [which would] also contribute to habitat degradation and introduce contamination." (4-76) The DEIS does not adequately document the possible threats and in the absence of a species survey
- CO5-151
- CO5-152 4-148 / 4.8.1.1 Pipeline Facilities - Open land definition
The definition of "open land" includes pasture/hay. To our knowledge, there is no land within the project area that is used for haying. Also we recommend deleting the phrase "trees stunted due to environmental conditions". What does this phrase mean?
- CO5-153
- CO5-154 4 - 149 / 4.8.1.1 Additional Space Required for Brush Clearing
We support FERC's request for additional information concerning additional space required for brush piling, and point out that the use of heavy machinery to place and move brush will have impacts similar to machinery used within the project right-of-way. As little as one set of vehicle tracks can create an area of soil compaction, plus create tracks that other vehicles or people on foot will follow.

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- CO5-149 Section 4.7.1.5 has been updated. Sierrita consulted with the FWS to develop an approach for transplanting and monitoring Pima pineapple cacti. Sierrita revised its *Reclamation Plan* and *Post Construction Vegetation Monitoring Document* to include the Pima pineapple cacti transplanting protocols. Sierrita is coordinating with the FWS regarding final acreages of Pima pineapple cactus habitat and would look to purchase credits from existing mitigation banks in the Altar Valley. Based on conversations with bank owners, mitigation banks in the Altar Valley contain a significant number of available credits. Any credits purchased by Sierrita would be unavailable to be used by another party for impacts on Pima pineapple cactus.
- CO5-150 Although this species is not listed, we reiterate our response to comment CO5-127 with respect to CEQ/NEPA guidance for our review of species of concern.
- CO5-151 See response to comment CO5-127. Section 4.7.1.7 discloses the potential direct and indirect impacts on the Sonoran Desert tortoise. We also note that the area is currently being affected by roads, trails, illegal immigration, and U.S. Border Patrol pursuit activities. Section 4.3.2.8, describes the conditions Sierrita would meet in order to discharge hydrostatic test water into livestock tanks.
- CO5-152 The AVCA's comment regarding the open land definition is noted. Section 4.8.1.1 has been updated to remove reference to hay.
- CO5-153 The AVCA's comment regarding the open land definition is noted. Section 4.8.1.1 has been updated to remove the category "trees stunted by environmental conditions."
- CO5-154 The brush storage area would not be accessed by vehicles but instead used to temporarily store cut, intact woody vegetation using equipment working from the approved construction right-of-way.

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CO5-155 4 - 149 / 4.8.1.1 Vegetation Clearing

Sierrita's plans regarding vegetation clearing and how it will be conducted, particularly relative to use of vehicles, need to be clarified. The DEIS contains unclear phrases such as, "Sierrita indicated, however, that it would not need to maintain vegetation (i.e., mow) within the permanent right-of-way in *most* [emphasis added] land uses types". AVCA is concerned that the DEIS does not refer to *all* land use types. AVCA suggests that the use of any type of vehicle to clear or mow vegetation will leave tracks that will encourage other vehicles to follow. Analysis of these unintended but inevitable vehicle uses should be addressed in analysis of indirect and cumulative impacts.

CO5-156 4 - 150 / 4.8.1.1 Open land

In the description of open land, the phrase "prior to overgrazing and the introduction of invasive plant species" and the comparison of grass species to the "plains of Sonora" are not supported by the best available science nor understanding Altar Valley land use and environmental history.

CO5-157 4 - 153 / 4.8.1.1 Effects on wildlife/livestock tanks

AVCA disagrees with FERC's contention that the two wildlife/livestock tanks would not be directly affected and this finding contradicts earlier FERC recommendations recognizing that channels connected to livestock tanks may indeed require additional careful treatment.

CO5-158 4 - 153 / 4.8.1.1 Repair of damaged water lines

The 30 day window for repair of damaged water lines is laughable, and yet another example of FERC's apparent lack of knowledge concerning local circumstances and drought conditions. In the event of a water line break, AVCA recommends that the landowner be notified within 1 hour and that the waterline be fully repaired within 24 hours.

CO5-159 4 - 153 / 4.8.1.1 Project impacts on livestock management

FERC's analysis of project impacts on livestock management is woefully inadequate, and appears to be biased towards concern about grazing impacts on restoration rather than the project's impacts on livestock operators. The DEIS takes another biased stab at livestock operators with the statement that "grazing can contribute to the rapid spread of weeds, which can reduce habitat quality and accelerate natural fire cycles." The fire cycle statement does not make any sense. Weeds can be spread by many forms of land use, especially vehicles.

CO5-161 4 - 154 / 4.8.1.1 Prescribed fire

Furthermore, while Sierrita may have "committed to working with local landowners and land managers to design site-specific measures intended to limit the cattle movement to the right-of-way," they have yet to do any work on that as no conversations regarding the limiting of livestock movement have occurred with Altar Valley livestock managers.

CO5-162 4 - 154 / 4.8.1.1 Prescribed fire

Furthermore, the effect of limiting livestock movement on grazing rotations and ranch profits must be analyzed. As there are no site-specific measures designed nor agreed upon at this time, any analysis based on assumptions about this topic are premature.

CO5-163 4 - 154 / 4.8.1.1 Prescribed fire

Note that DEIS states that prescribed burns would be allowed.

CO5-164 4 - 155 / 4.8.1.1 Detours

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CO5-155 See responses to comments SA6-4 and SA6-15.

CO5-156 The statement was obtained from the FWS' CCP for the BANWR. It is unclear from the AVCA's comment what should be altered or clarified.

CO5-157 The AVCA's comment regarding impacting livestock tanks is noted. The two livestock tanks would be outside of the construction workspace and, therefore, would not be directly affected by the Project. Section 4.8.1.1 has been updated to acknowledge indirect impacts on livestock tanks.

CO5-158 See response to comment CO5-62.

CO5-159 Section 4.10.6 has been updated to note that the easement agreement between Sierrita and the landowner or agency would specify compensation for damage to property during construction, loss of use during construction, loss of renewable and nonrenewable or other resources, and allowable uses of the permanent right-of-way after construction. As discussed in section 4.8.2.3, Sierrita would secure easements to convey both temporary (for construction) and permanent (for operation) rights-of-way on private lands. Landowners have the opportunity to request that site-specific factors and/or development plans for their property be considered during easement negotiations, and that specific measures be taken into account.

As discussed in section 4.8.1.1, easement agreements would prohibit certain types of uses from occurring within the permanent right-of-way that could affect the maintenance and safe operation of the pipeline, such as the construction of any permanent aboveground structures (e.g., houses, commercial buildings) or excavation activities. However, operation of the pipeline would not affect other types of land uses or other activities that do not directly disturb the pipeline or operational right-of-way. Most land uses, such as grazing, would be allowed to revert to prior uses following construction.

As discussed in section 4.10.6, while restoration of native vegetation in areas disturbed by construction would represent a long-term impact, there is sufficient existing vegetation surrounding the immediate Project area to support grazing cattle.

CO5-160 Grazing is one example of how weeds may be spread. Section 4.8.1.1 has been updated to acknowledge that the spread of weeds can also be the result of undocumented immigrant foot traffic and unauthorized use of the right-of-way. Also see response to PM1-7.

CO5-161 The AVCA's comment regarding Sierrita's lack of conversations regarding limiting livestock movement is noted. Negotiations concerning impacts on specific grazing practices and possible mitigation/compensation are typically addressed during easement negotiations.

CO5-162 See responses to comments CO1-11 and CO5-159.

As discussed in section 4.8.1.1, it is acknowledged that construction would impact livestock grazing by disturbing foraging areas and interrupting/displacing grazing activities for the duration of construction. Construction

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- CO5-162
(cont'd) activities could also cause damage to or require removal of fences or other natural barriers used for livestock control, could block access to water sources or other grazing areas, and could cause risk of livestock injury from falling into or becoming entrapped in open trenches. To keep livestock out of the work area, in coordination with the landowner or land-managing agency, Sierrita would install temporary fence gaps during construction and implement other measures, such as salt licks and windrowed brush. Sierrita would, as needed, replace existing fences or install permanent gates, and leave braces in place following construction. Further, Sierrita would seed disturbed areas after construction in accordance with the specifications outlined in its *Reclamation Plan*.
- As discussed in its Plan, Sierrita would coordinate with lessees prior to construction and would erect temporary fencing to effectively minimize impacts on livestock, or work with the landowners and land management agencies to identify alternative measures to protect reclamation efforts for the Project.
- CO5-163 The AVCA's comment acknowledging prescribed burns is noted.
- CO5-164 All areas proposed for disturbance as part of the Project are identified in sections 2.0 and 4.0. Areas that may be subsequently identified for use by Sierrita and that are not already included in the analysis would have to comply with environmental recommendation No. 5 (see section 5.2). Creation of new access roads would be prohibited unless these requirements were met.

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COS-164 (cont'd) The DEIS notes that detours may be required during open-cut road crossings on access roads. AVCA recommends that any detours be subject to the same biological and cultural reviews and mitigation requirements as access roads themselves, since they will be creating new roads.

COS-165 4 - 156 / 4.8.1.4 Access Roads
AVCA recommends that access road restoration be subject to the same level of effort and monitoring as the right-of-way itself. Additionally, Kinder Morgan should be required to leave these access roads in better shape than it found them, which would involve deliberate and site-specific decisions about desired road width and installation of carefully designed drainage structures to ensure that the roads do not contribute to local erosion problems.

COS-166 4 - 158 / 4.8.2.1 Road grading and Land Disturbance
4-158 AVCA disagrees with the statement that grading of BANWR roads (and any other access road outside of BANWR) "would not result in the use or disturbance of ... land beyond that already dedicated to the existing road." AVCA's work on watershed restoration has shown that roads are one of the chief causes of excessive erosion and channel down cutting, usually due to road grading that turns the road itself into a drainage channel. Road grading that is done without regard for the way the road lies on the land is a major cause of Altar Valley erosion problems, and it is likely that Kinder Morgan's road grading efforts will cause numerous direct, indirect and cumulative impacts to the watershed both with BANWR and outside BANWR.

COS-167 4 - 168 / 4.8.5.1 Project Impacts - Visual Analysis
The DEIS visual analysis contradicts itself on page 4-168 where one sentence says that "successful reclamation ... is expected to make it virtually undetectable"; and the next sentence states that "some vegetation types would not be fully reestablished ... for at least 20 years and may take several decades", resulting in long term impacts to Brown Canyon and Baboquivari Peak visitors.

COS-168 4 - 172 - 174 / 4.9.1 Illegal Immigration impacts
The DEIS concedes that impacts from illegal immigration and human and drug trafficking could "exist for the life of the pipeline" and that "the Project could provide a new pathway for existing illegal activity in the Altar Valley". In this regard, the DEIS does reveal expected impacts. Unfortunately, it completely fails to suggest any mitigation of these impacts; and delegates that responsibility to Border Patrol. The fact that the public cannot view the supposed security plan is of grave concern to those of us who live and work in the Altar Valley. The rumor mill indicates that while there is a security plan for the construction phase, there is no plan for the time following construction. Early in the process, Border Patrol officials with local knowledge voiced concerns; and these same local officials appear to have been effectively removed from the discussion by officials higher up the Border Patrol bureaucracy. It appears that since there is federal will for this project to occur, regardless of impacts and logic, that very real issues related to security are being intentionally watered down. Furthermore, these same security issues will "likely deter vegetation from becoming re-established along the pipeline right-of-way."

COS-169 4-175 / 4.9.2 Restoration Measures Data Request

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COS-165 Sierrita is required to restore all areas disturbed by construction, including access roads. Leaving any improvements in place would be negotiated with the landowner. The AVCA's comment regarding leaving roads in better condition than the pre-construction state is noted.

COS-166 The AVCA's comment regarding road impacts on the BANWR is noted. Section 4.8.2.1 has been updated to acknowledge that grading may result in impacts adjacent to but outside of the existing road footprint.

COS-167 The description of visual impacts was based on review of Sierrita's visual simulations at specific locations along the Project. The Executive Summary and sections 4.8.5.1, 4.14.9, and 5.1.8 have been updated to clarify visual impacts and vegetation re-establishment.

COS-168 As discussed in section 4.9.2, Sierrita proposed several restoration measures to deter use of the right-of-way following construction. Sierrita would not create nor maintain a road for its use along the permanent right-of-way. The EIS acknowledges that the proposed mitigation measures may not completely deter off-road vehicle use or pedestrian traffic along the right-of-way, but they may help to deter vehicular traffic, and also notes possible impacts on right-of-way use. We note that it is not Sierrita's responsibility to interdict people involved in illegal activities.

The AVCA's comment regarding the Security Plan is noted. FERC staff is not in possession of the Security Plan.

The CBP participated as a cooperating agency in the preparation of the EIS. Specifically, section 4.9 was developed with the assistance of the U.S. Border Patrol, the law enforcement agency of the CBP, and represents the agencies' current stance on Project-related impacts.

COS-169 Sierrita filed information on December 16, 2013, responding to our recommendation in the draft EIS to provide additional information regarding restoration measures.

Also see response to comment PM1-3.

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CO5 – Altar Valley Conservation Alliance (cont'd)

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CO5-169 (cont'd) We agree with FERC's call for additional information regarding restoration measures, and as with previous FERC information requests, recommend that public review of this new information is critical.

CO5-170 4-177 / 4.10 Socioeconomics

It is hard to comment in any meaningful way on the social and economic section of the DEIS. While there are several tables and columns of figures, there is nothing even remotely resembling a real fact-based study. Further, neither the temporal nor spatial boundaries of the analysis is set forth clearly. The DEIS states that the majority of the workforce would be housed in Tucson, logically enough, but does not focus adequately on the actual and uniformly adverse effects within the project area. Instead, it appears to be more an apology for Kinder Morgan based on the sweet notion of the promise of jobs; never mind that the majority of jobs (80%) will be non-local and that the rest will be of extremely short duration.

CO5-173 4-180 / 4.10.3 Socioeconomics: Public Services

There is a glaring inconsistency here: "It is reasonable to assume that, with an increase in illegal immigration and human and drug trafficking in the Project area, there would be an increase in costs to public services. . . . the sheriff's department also believes that illegal immigration activities would likely increase in the Altar Valley as a result of the Project." Yet on the same page we read that, "However....while pipeline right-of-way may be used by undocumented immigrants or other unauthorized uses, it would not necessarily cause an increase in illegal immigration." Perhaps it wouldn't cause an increase nationally, but the evidence reported on this very page states that it would increase in the project area!

CO5-174 4-181-4-183 / 4.10.4 Socioeconomics: Transportation

"Construction activities could result in short-term impacts on transportation infrastructure. These could include disruption to traffic flow...construction of pipeline facilities across existing roads; and damage to local roads from the movement of heavy construction equipment and materials, followed two paragraphs later by, "There would be little or no disruption of traffic at road crossings..."

CO5-175 While there is some mathematics to supposedly demonstrate the number of vehicles using State Highway 286, no mention is made of the many ranch roads that provide the only access for residents to the highway.

CO5-176 Also, why would there be a different standard for road improvement on private versus public roads. The DEIS states that public roads would "repaired as close as practicable to their original condition; whereas private roads would be returned to their original condition or better".

CO5-177 4-183 / 4.10.4 Socioeconomics: Transportation

"Following construction, Sierrita would remove access road improvements and restore improved roads to their preconstruction condition..." (4-183) is another intriguing concept, given the size and weight of the equipment described for the project. The EIS should explain whether Sierrita will replant trees and grass along these roadways and narrow them to their original width?

CO5-178 4-183-4-184 / 4.10.5 Socioeconomics: Property Values

Regarding the effect on property values, we find "...Sierrita would compensate the landowner or agency for the use of the land." But, "This is not to say that the pipeline would not affect resale values...each potential purchaser has different criteria and differing capabilities to purchase land." The EIS needs to address the criteria and capabilities of purchasing land

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CO5-170 The information tables presented in section 4.10 are based on information from the U.S. Census Bureau.

CO5-171 The temporal boundary of section 4.10 is focused on the construction and restoration stages of the Project. The spatial boundaries of section 4.10 is focused on the immediate Project area but includes U.S. Census Bureau data, where available, regarding Arizona, Pima County, Three Points, Arivaca, and Sasabe.

CO5-172 Section 4.10 acknowledges that there would be only temporary to short-term and minor impacts on employment.

CO5-173 Section 4.10.3 has been updated to clarify that although the pipeline right-of-way may be used by existing undocumented immigrants or other unauthorized uses, it would not necessarily cause an increase in illegal immigration but instead could result in a shift of pathways and unauthorized travel corridors to and along the right-of-way.

CO5-174 As stated in section 4.0, we begin our discussion of potential impacts for a given resource with what could happen in the absence of appropriate construction techniques or conservation measures to address environmental impacts on or effects to resources. The conclusion that there would be little or no disruption of traffic at road crossings is based on Sierrita's proposed construction and mitigation measures discussed in section 4.10.4.

CO5-175 The number of users of ranch roads would vary day by day and would not be more than the usage identified along Highway 286. Using a worst-case scenario, 160 vehicles are anticipated to be used during Project construction and, if all construction activities were directed to one specific location at the same time, this number of vehicles could occupy a ranch road. However, because of the linear and sequential nature of pipeline construction, the likelihood of this happening is highly unlikely. Regardless of the number of users, Sierrita would cross most smaller, unpaved roads using the open-cut method (see table 4.10.4-1). As noted in section 2.3.2.3, roads would be closed only where allowed by permit or landowner/land-managing agency consent. Following construction, temporary access roads would be restored to pre-construction condition or better unless otherwise requested by the landowner or land-managing agency.

CO5-176 Section 4.10.4 has been simplified to note Sierrita's commitment for access road restoration.

CO5-177 Sierrita would return access roads to their original condition. This includes, if roads were widened, implementing the restoration measures identified in its Plan and *Reclamation Plan* for the area disturbed by the Project.

CO5-178 It is outside of the scope of the analysis for FERC to speculate what criteria or capabilities any possible buyer would have for a property with a pipeline

CO5 – Altar Valley Conservation Alliance (cont'd)

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- CO5-178 (cont'd) crossed by a utility corridor which will cause "Unauthorized roads and trails, dispersed camping sites, illegal dumping and littering, U.S. Border Patrol enforcement activities..." and "contribute to habitat degradation and contamination." (4-76)
- CO5-179 4-185 / 4.10.6 Socioeconomics: Economy and Tax Revenues
AVCA certainly hopes that FERC's finding that the "Project would not have an adverse, significant impact on ranching and grazing practices" remains true; however given previous FERC statements about the interactions between grazing and restoration, this finding appears to be premature. The anti-grazing bias of this document raises grave concerns for Altar Valley livestock operators. This concerns us, as there are many reasons why we believe that the project will, in fact, have a serious impact on ranching and grazing practices, including problems with fencing, erosion, increased illegal traffic and other problems detailed herein. We do not believe that the information in this DEIS, coupled with what we know from living on the land, sustains FERC's finding. Furthermore, the DEIS makes statements regarding both FERC and Sierrita's plans to restrict grazing in the project area. In some areas of the project, the ROW passes through pastures, and restricting use of the pastures will change the management of a herd, potentially limiting the number of animals the ranch is able to sustain. This will certainly have a significantly detrimental impact on ranching and grazing practices.
- CO5-180
- CO5-181 4-186 / 4.10.6 Regarding impacts to Guest Ranches and Ecotourism
The DEIS states, "The socioeconomic impact on guest ranches and ecotourism would be minor and temporary." The DEIS visual analysis says that "some vegetation types would not be fully reestablished ... for at least 20 years and may take several decades", resulting in long term impacts to Brown Canyon and Baboquivari Peak visitors. It should be noted that visual impacts from the Elkhorn Ranch would be the same as from Baboquivari Peak Wilderness. Given that the Elkhorn Ranch (like all guest ranches) draws individuals interested in experience open landscapes, the visual scar of a pipeline right-of-way would impact them. Twenty years is certainly not "temporary."
- CO5-182 4-189 / 4.10.7 Environmental Justice
In Table 4.10.7-2, median household incomes in the area are listed as: Three Points - \$36,530 and Arivaca -- \$35,043; and mention is made that "the majority of communities within the Project area have poverty rates that are similar to or slightly higher than the statewide level." and are "well above the state average in some of these areas." (4-189) The following conclusion: that the pipeline will have minimal impact on the surrounding population..." is not sufficiently demonstrated in the report. The effect of loss of income from tourism due to increased illegal traffic, increased Border Patrol activity, habitat destruction, negative perceptions of the pipeline and the safety of the pipeline in general is never sufficiently demonstrated, it is only projected with statements like "The amount of illegal activity at and near border crossings is dependent on many variables that are not directly measurable." (4-186) An effect that is not directly measurable cannot be used as proof of no negative effects. FERC must provide further analysis to demonstrate that their conclusion is substantiated. And even if the project would have only "negligible to minor effects" on economies, the median incomes are alarmingly low and any detrimental effect however slight could be highly detrimental and significant.
- CO5-183 4-221 / 4.14 Cumulative Impacts: Environmental Setting
The tone of the environmental setting description is a very negative mockery of the work that both individual ranches and AVCA have done during past decades. It fails to use the best available sources, including Pima County's publicly available information, and is flagrantly ignorant of historical trends and current goals for the watershed. The notion of the BANWR

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CO5-178 (cont'd) easement on it, and each potential purchaser has different criteria and differing capabilities to purchase land.

The impacts associated with the Project as described in the comment ("unauthorized roads and trails, dispersed camping sites, illegal dumping and littering, U.S. Border Patrol enforcement activities..." and "contribute to habitat degradation and contamination") have historically occurred and are currently ongoing in the Altar Valley.

CO5-179 Section 4.9.2 acknowledges the potential indirect impacts (e.g., erosion, vandalism, fence cutting) of the Project as a result of unauthorized right-of-way use.

Also see responses to comments PMI-7, CO5-121, and CO5-159.

CO5-180 As discussed in section 4.8.2.3, Sierrita would secure easements to convey both temporary (for construction) and permanent (for operation) rights-of-way on private lands. Landowners have the opportunity to request that site-specific factors and/or development plans for their property be considered during easement negotiations, and that specific measures be taken into account.

As discussed in section 4.8.1.1 and in Sierrita's Plan, Sierrita would coordinate with lessees and work with the landowners and land-managing agencies to identify alternative measures to protect reclamation efforts for the Project. Following construction, the disturbed area would be returned to pre-construction conditions; grazing activity would not be permanently impacted.

Also see response to comment CO5-159.

CO5-181 Section 4.10.6 has been updated to acknowledge Project-related visual impacts on the Elkhorn Ranch and other guest ranches and ecotourism. Section 4.8.5.1 also discusses visual impacts associated with the Project.

CO5-182 We do not agree that the items noted (loss of income from tourism, increased U.S. Border Patrol activity, habitat impacts, and public perception of danger) are relatable to environmental justice; however, we addressed these impacts in sections 4.9 and 4.10.6. Further, these impacts already occur in the Altar Valley for various reasons and, as such, are currently realized.

As clarified in section 4.10.3, it cannot be determined whether the Project itself would cause an increase of or shift in illegal activities from what is already experienced throughout the Altar Valley as a result of undocumented immigrants or other unauthorized users. Illegal immigration activities are dependent on several variables and factors that are not directly measurable or predictable, such as U.S. Border Patrol operations and the national economy.

As noted in section 4.10.6, the BANWR estimates that visitation to the refuge for the last 10 years has been relatively stable, with the exception of overnight camping decreasing due to border issues.

CO5-183 The EIS does not identify the BANWR as the "sole steward of the native grassland and vegetation." The information presented in the EIS was obtained

CO5 – Altar Valley Conservation Alliance (cont'd)

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- COS-183 (cont'd) being the "sole steward of native grassland and vegetation for native wildlife and endangered species" is patently false and serve no useful purpose here, except to falsely portray the portions of the Altar Valley outside the BANWR as less valuable from an open space and wildlife habitat point of view.
- COS-184 An improved environmental setting description would describe the major differences between three separate portions of the project area: the populated area around Three Points, the portion of where the proposed pipeline follows Highway 286, and the "greenfield" portion where the preferred alternative leaves the highway to cross open country. Given a true analysis of alternatives, the DEIS would be able to describe an alternative that lacks all greenfield development (the highway route) and an alternative that includes greenfield (the western route). It would provide accurate, up-to-date information about the state of vegetation, soil and wildlife in the western half of the Altar Valley. Unfortunately, because this analysis is not in the DEIS, the baseline for cumulative effects is fundamentally wrong and leads to the problems with the rest of the analysis and conclusions in this section.
- COS-185
- COS-186 4-222, 224 & 226 / 4.14 Prescribed Fire and Ranchers
There is a premise that runs through the document that there is a history of prescribed fire by ranchers in the Altar Valley that has contributed to what the DEIS characterizes as "over-grazed, fire-damaged ranch lands". There is absolutely no historical or scientific basis for this claim about historical fire. There has been very little prescribed fire throughout this past century, except on BANWR. The EIS should analyze how the proposed project will impact the Altar Valley Fire Management Plan, available at http://altarvalleyconservation.org/wp-content/uploads/pdf/Altar_Valley_Fire_Management_Plan.pdf.
- COS-187 4-226 / 4.14.2 Description of Alternative Futures
The cumulative impacts analysis should evaluate alternative futures with varying levels of reclamation success. Based on FERC's numerous data requests, it is clear that FERC itself is not satisfied with Sierrita's plans; thus it makes no sense to assume that there will be no impacts.
- COS-188 4-228 / 4.14.3.2 Soil and Surface Water Resources
The cumulative impacts analysis fails to recognize that the on-site and off-site impacts of project restoration efforts that are likely to not be effective. This is acknowledged in parts of the DEIS but the analysis is presented in a contradictory, inconsistent manner. Again, FERC needs to present analyses premised on both mitigation failures and mitigation successes.
- COS-189 4-228 4.14.2.2 Water Quality issues in Nogales Creek, Sonoita Creek & Nogales
What is the purpose of describing water quality issues in Nogales Creek, Sonoita Creek and Nogales, all of which are outside the project area and the region of influence described on p 4-220?
- COS-190 4-229 / 4.14.3.2 Population Increases
The DEIS incorrectly states that the "population increases in the northeastern portion of the watershed from Tucson towards Phoenix". Does the DEIS refer here to the Santa Cruz watershed or the Altar Valley watershed?
- COS-191 4-230 / 4.14.5 Non-native vegetation and fire
The DEIS statement that the "introduction and spread of non-native vegetation, particularly grasses, has increased the prevalence of fires in these communities, causing extensive damage to native scrub vegetation that cannot withstand the more frequent and hotter
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COS-183 (cont'd) through review of several current and historical sources as well as discussions with agency personnel such as the BANWR, which is subject to the same environmental pressures as other areas surrounding the Project, with the exception of grazing.

Section 4.14 (Environmental Setting) has been updated to acknowledge local restoration efforts such as developing resource management plans and implementing scientifically based range management practices.

COS-184 Section 4.14 (Environmental Setting) has been updated to acknowledge the three separate portions of the Project.

COS-185 The AVCA's comment regarding identifying an alternative that lacks greenfield development is noted.

Also see responses to comments PM1-6 and PM1-10.

COS-186 Contrary to the AVCA's comments, the benefits of prescribed and managed fire on vegetation are noted throughout the EIS, such as sections 4.4.1, 4.4.6, and 4.5.2.2. Section 4.4.6 has been updated to clarify that wood fencing, government fire management policies, lack of sufficient herbaceous cover to sustain fires, and considerations for ESA species have also contributed to unmanaged or altered fire regimes.

Sections 4.4.1 and 4.4.6 address Project-related impacts on the Altar Valley Fire Management Plan.

Section 4.14.2 has been updated to clarify that soil stabilization and restoration projects are intended to improve historic erosion, drought conditions, and fire-suppression activities.

We note that the comment regarding very little prescribed burns occurring outside of the BANWR contradicts comments from other parties (see comment IND13-13, which asserts that ranchers were doing prescribed burns before the BANWR). Therefore, the time period in which prescribed burns have been occurring and where in the Altar Valley is unclear.

COS-187 The AVCA's comment regarding evaluating alternative futures with varying levels of reclamation success is noted.

The intent of FERC's data requests regarding Sierrita's plans was to note alternative or additional reclamation methods identified by stakeholders, including non-landowners such as the AVCA, for Sierrita's consideration. We conclude that Sierrita's commitment to implement the measures identified in its revised plans would avoid or minimize direct, indirect, and cumulative impacts that may occur from the Project.

COS-188 Our analysis of the Project impacts and Sierrita's proposed mitigation measures is based on extensive previous pipeline experience. We conclude that Sierrita's commitment to implement the measures identified in its revised plans would avoid or minimize direct, indirect, and cumulative impacts that

CO5 – Altar Valley Conservation Alliance (cont'd)

- CO5-188 (cont'd) may occur from the Project. It would be speculative in nature to identify restoration efforts aimed at restoring vegetation and call them a failure before even implemented. We do, however, acknowledge unique challenges to restoration that could occur within the Project area.
- Also see response to comment SA6-12.
- CO5-189 As shown on figure 4.3.2-1 and discussed in section 4.14.3.2, the Upper Santa Cruz Watershed (which is included as part of the region of influence for cumulative impacts) encompasses the area that includes Nogales, Arizona and the Nogales Creek. Section 4.14.3.2 has been updated to remove the reference to Sonoita Creek.
- CO5-190 The EIS refers to the Greater Santa Cruz watershed basin. Section 4.14.3.2 has been updated to clarify that the City of Phoenix is located outside the Greater Santa Cruz watershed basin.
- CO5-191 Section 4.14.5 has been updated to note that these occurrences apply to areas where buffelgrass exists and does not apply to the entire Altar Valley watershed.

CO5 – Altar Valley Conservation Alliance (cont'd)

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- COS-191 (cont'd) burning fires" does not apply universally to the Altar Valley watershed. While it may apply to areas of buffelgrass, it is not an accurate description of the entire Altar Valley watershed.
- COS-192 4-230 / 4.14.5 Grazing, Ranching Practices and Fire
AVCA strongly objects to the inclusion of grazing and ranching practices and fire as contributors to cumulative impacts. On what basis does FERC make these claims? The DEIS neglects to analyze the actual fire history within the project area.
- COS-193 4-231 / 4.14.6 Wildlife Sources Specific to the Project Area
The wildlife cumulative impact analysis appears to cite general sources, but does not appear to include any discussion based in the project area nor its surroundings.
- COS-194 4-232 / 4.14.8 Special Status Species
AVCA takes issue with FERC's claim that "other private activities such as grazing and restoration projects would not be required to consult on special status species," and the implication that these projects would have cumulative impacts on special status species. What is the basis of these claims?
- COS-195 4-234 / 4.14.9.1 Future Utility Projects
It is interesting to note that the DEIS does acknowledge the possibility of future utility projects seeking use of the proposed pipeline right-of-way, since it would be an impact area. AVCA concurs with this finding. Opening the undeveloped portions of the Altar Valley watershed to development is one of AVCA's major concerns.
- COS-196 4-234 / 4.14.9.2 Cumulative Visual Impacts on an existing right-of-way
AVCA concurs with the DEIS finding that "widening an existing right-of-way to construct the Project would contribute to cumulative visual impacts; however, this impact would be less than if Sierrita were to build an entirely new greenfield pipeline outside of existing rights-of-way.
- COS-197 4-235 / 4.14.10 Proposed measures to limit unauthorized access
AVCA remains skeptical that Sierrita's proposed measures to limit unauthorized access will be capable of assuring no adverse impacts, a concern shared by FERC at various points earlier in the analysis. To express confidence in this portion of the DEIS contradicts earlier DEIS's earlier statements.
- COS-198 5-13 - 5-16 / 5.2 Summary of Requests for Additional Data
FERC summarizes its numerous requests for additional data that Sierrita must file before the end of the DEIS comment period. This information is of vital public interest and merits public review before issuance of a final EIS. FERC must issue a supplemental DEIS to allow public review of this important new information.

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- CO5-192 Section 4.4.6 has been updated to include information regarding historical and current prescribed burns. We note that CEQ guidelines advise that "...the historical context surrounding the resource is critical to developing these baselines and thresholds...." Consistent with the CEQ's guidance, the Ninth Circuit Court of Appeals in 2008 held that an agency may aggregate its cumulative effects analysis of past projects pursuant to CEQ regulations, and that in doing so, the analysis of cumulative impacts of historical events satisfies the "hard look" standard. This final EIS uses that approach. Regardless of the current conservation and restoration activities, the effects of historical overgrazing, erosion, and fire suppression have defined the majority of the Project's current environmental setting from which a baseline has been established.
- CO5-193 Section 4.14.6 has been updated to include a reference to wildlife species common to the area.
- CO5-194 Section 4.14.8 has been updated to note that, based on federal law, private landowners may not harm or otherwise take a federally listed threatened or endangered species unless they have an incidental take permit issued by the FWS. Regarding critical habitat, however, private landowners who take actions on their land that do not involve federal funding or require a federal permit are not required to obtain a permit. We also note that it has been documented that some special-status species are impacted by grazing activities.
- CO5-195 The AVCA's comment regarding future utility projects is noted.
- CO5-196 The AVCA's comment concurring with the draft EIS for this issue is noted.
- CO5-197 The AVCA's comment expressing skepticism of Sierrita's restoration measures to limit unauthorized right-of-way access is noted.

Also see response to comment PM1-8.
- CO5-198 The AVCA's comment regarding a supplemental draft EIS is noted.

Also see response to comment PM1-3.

CO5 – Altar Valley Conservation Alliance (cont'd)

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Appendix Listings

Appendix A: AVCA December 13, 2012 Letter to FERC (Docket No. PF12-11-000, Accession Number 20121213-5149)

Appendix B: 2001 Altar Valley Conservation Alliance Watershed Resource Assessment - Watershed Action Plan and Final Report

CO5 – Altar Valley Conservation Alliance (cont'd)

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14990 S. Sasabe Road
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www.altarvalleyconservation.org

December 13, 2012

Secretary Kimberly D. Bose
Federal Energy Regulatory Commission
888 First Street Northeast, Room 1A
Washington, D.C. 20426

Regarding: **Docket No. PF12-11-000**
Sasabe Lateral Pipeline Project

Dear Secretary Bose:

We are writing regarding a concern related to a recent Kinder Morgan announcement about the above-referenced Project. The Altar Valley Conservation Alliance (Alliance) is a collaborative conservation organization of ranchers and other agriculturalists living and working in the Altar Valley, south of Tucson, Arizona, who would be impacted by the Project. Accordingly, we submitted extensive scoping comments on October 25, 2012, and participated in the public scoping meetings as well as other meetings with staff of the Federal Energy Regulatory Commission (FERC) and other interested agencies.

We are very concerned about El Paso Natural Gas Company's (El Paso) focus on Sasabe as the only possible entry point into Mexico and its apparent unwillingness to consider alternative points of entry. Alliance members and other members of the public have identified alternative entry points that would facilitate the transmission of gas to Mexico while avoiding the numerous, serious adverse impacts that would occur if the pipeline is constructed and operated in the Altar Valley. In that regard, we were pleased to see that FERC, in its comments on Draft Resource Report 10 dated November 21, 2012, has asked for explanation of the rationale for Sasabe as the proposed entry point. The comments also direct El Paso to identify and analyze other reasonable points of interconnection at the U.S.-Mexico border, including Nogales, Naco, Lukeville, and Douglas, as well as including a pipeline route alternative that would be located within the West-wide Energy Corridor and a pipeline that would follow existing pipeline systems in California and/or New Mexico.

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CO5 – Altar Valley Conservation Alliance (cont'd)

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Throughout the scoping process, FERC staff representatives have clearly articulated the environmental review process under the National Environmental Policy Act (NEPA) and FERC decision-making process. In so doing, FERC staff has explained that a key part of the NEPA process is the identification and analysis of reasonable alternatives that meet the purpose and need of the Project. Accordingly, we were, therefore, dismayed to read Kinder Morgan's recent announcement that it and El Paso have entered into a 25-year "transportation precedent agreement" which apparently "specified that a new U.S. pipeline would be required to terminate at Sasabe and connect existing natural gas transmission infrastructure in the United States to the planned pipeline in Mexico." See, "Kinder Morgan's El Paso Natural Gas Pipeline Signs Long-Term Contract to Serve Customers in Mexico", available at <http://phx.corporate-ir.net/phoenix.zhtml?c=93621&p=irol-newsArticle&ID=1758752&highlight>; see also, "Kinder Morgan announces gas contract before pipeline is OK'd", available at http://www.insidetucsonbusiness.com/news/kinder-morgan-announces-gas-contract-before-pipeline-is-ok-d/article_88a1153a-3414-11e2-9896-0019bb2963f4.html. While the Kinder Morgan announcement references the need for FERC's approval and for a Presidential permit, nothing in the announcement suggests that the company understands and accepts the legal requirement to consider alternative entry points into Mexico.

Kinder Morgan's and El Paso's announcement and related media stories about the execution of this contract suggest the possibility of a violation of the limitation on actions that an applicant can take during the course of the NEPA process. Under the Council on Environmental Quality's ("CEQ") regulations implementing the procedural provisions of NEPA, applicants are not to take action concerning a proposed project that would (1) have an adverse environmental impact, or (2) limit the choice of reasonable alternatives. The aforesaid announcement suggests that Kinder Morgan and El Paso have taken an action that could be interpreted to "limit the choice of reasonable alternatives." Further, as set out in our scoping comments, the Alliance strongly believes that pipeline construction through the Altar Valley to get to Sasabe will "have an adverse impact."

As noted above, the most recent announcement by Kinder Morgan appears to document an agreement purportedly binding it and El Paso to construct a pipeline in the United States terminating at a particular location in the United States prior to even filing a formal application with FERC, let alone waiting for FERC's decisions related to both public convenience and necessity and issuance of a Presidential permit. These activities appear to be highly inappropriate pre-decisional commitments on the part of Kinder Morgan and El Paso, and are very disturbing.

In these circumstances, we strongly urge FERC to supplement its recent comments on El Paso's Resource Report #10 with a written communication notifying Kinder Morgan and El Paso that their actions appear to be in violation of 40 C.F.R. 1506.1 and that they must take whatever steps are necessary to ensure that they have not limited the choice of reasonable alternatives. In that regard, we respectfully draw FERC's attention to CEQ's guidance that an agency should take appropriate measures under its permitting authority to rectify the situation. "Forty Most

CO5 – Altar Valley Conservation Alliance (cont'd)

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Asked Questions Concerning CEQ's National Environmental Policy Act Regulations", Question 11, available at <http://ceq.hss.doc.gov/nepa/regs/40/11-19.HTM#11>.¹

Thank you for your consideration of this request and for your leadership related to this project.

Sincerely,



Patricia King
President
Altar Valley Conservation Alliance

cc: Mr. Francisco Tarin
Director, Regulatory Affairs Department
El Paso Natural Gas Company

¹ Specifically, the CEQ guidance states that, "The federal agency must notify the applicant that the agency will take strong affirmative steps to insure that the objectives and procedures of NEPA are fulfilled. Section 1506.1(b). These steps could include seeking injunctive measures under NEPA, or the use of sanctions available under either the agency's permitting authority or statutes setting forth the agency's statutory mission. For example, the agency might advise an applicant that if it takes such action the agency will not process its application." [emphasis added]